

SHARP

COMPACT DISC STEREO MUSIC SYSTEM
COMPACT DISC STEREO-MUSIK-SYSTEM
SYSTÈME MUSIQUE STÉRÉO AVEC LECTEUR DE DISQUE COMPACT
CADENA ESTÉREO CON COMPACT DISC
COMPACT DISC STEREOMUSIKSYSTEM
SISTEMA MUSICALE STEREO CON LETTORE CD

MODEL
MODELL
MODÈLE

MODELO
MODELL
MODELLO

CD-S600H

SPEAKER SYSTEM
LAUTSPRECHERSYSTEM
ENCEINTES ACOUSTIQUES
SISTEMA DE ALTAVOCES
HÖGTALARSYSTEM
SISTEMA DI DIFFUSORI

MODEL
MODELL
MODÈLE

MODELO
MODELL
MODELLO

CP-S600H

OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI

MANUAL DE MANEJO
BRUKSANVISNING
MANUALE DI ISTRUZIONI



ENGLISH

DEUTSCH

FRANÇAIS

ESPAÑOL

SVENSKA

ITALIANO

COMPACT
disc
DIGITAL AUDIO



Active Servo
Technology

SPECIAL NOTES FOR UK CUSTOMERS ONLY

NOTE FOR USERS IN UK

IMPORTANT:

The wires in this mains lead are coloured in accordance with the following code:

BLUE: "NEUTRAL"

BROWN: "LIVE"

CONNECTING PLUG TO MAINS LEAD:

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plugs, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Caution:

Do not connect the line (BROWN) core or the neutral (BLUE) core to the earth terminal of your plug.

This apparatus must be protected by a 3A fuse in the mains plug or distribution board.

SERVICE INFORMATION

In the unlikely event of your equipment requiring repair, please telephone one of the numbers listed below. You will then be given details of how to obtain service.

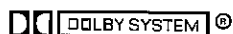
BIRMINGHAM	021-200-2492
BRISTOL	0272-277897
GLASGOW	041-332-1720

LEEDS	0532-455706
LONDON	071-936-9140
MANCHESTER	061-833-0226

- Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of the Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1958, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments and orders.
- The letters in brackets contained in the model number indicate the colour of the product only. Operations and specifications are unaffected.
- In order to protect this product from damage during transportation, repack it as illustrated on the flap of the packing case.

The following parts mentioned in this operation manual are not included with this unit.

- External aerials
- Earth rod
- Compact disc
- Cassette tape
- Headphones
- Cotton swab
- Demagnetiser
- Cloth



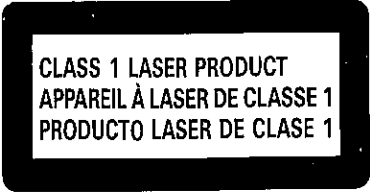
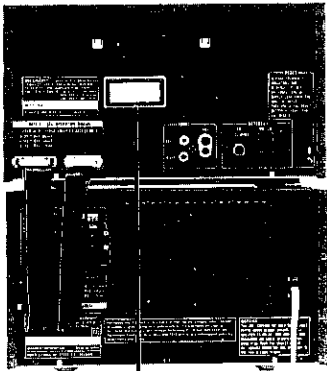
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

- When the POWER switch is set at ϕ STAND-BY position mains voltage is still present inside the unit.
When the POWER switch is set at ϕ STAND-BY position and the POWER indicator is illuminated, the unit may be brought into operation by use of (timer mode or) remote control.

Warning:
This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

- This apparatus complies with the requirements of EN 55014, 02.1987 and BS 800:1988.

Caution:
This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.



CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

SPECIAL NOTES FOR EUROPEAN CUSTOMERS ONLY
BESONDERE ANMERKUNGEN NUR FÜR EUROPÄISCHE KUNDEN
REMARQUES SPÉCIALES SEULEMENT POUR LES UTILISATEURS EUROPÉENS
NOTAS ESPECIALES PARA LOS CLIENTES EUROPEOS SOLAMENTE
SÄRSKILDA ANMÄRKNINGAR FÖR EUROPEISKA KUNDER
NOTE PARTICOLARI SOLTANTO PER CLIENTI EUROPEI

- When the POWER switch is set at ϕ STAND-BY position, mains voltage is still present inside the unit.
When the POWER switch is set at ϕ STAND-BY position and the STAND-BY indicator is illuminated, the unit may be brought into operation by use of (timer mode or) remote control.

Warning:

This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.

- Bei Einstellung des POWER-Schalters auf ϕ STAND-BY ist die Netzspannung immer noch im Gerät vorhanden.
Wenn die POWER-Schalter auf ϕ STAND-BY eingestellt und die STAND-BY-Anzeige beleuchtet wird, kann das Gerät mit Verwendung von (Timer-Betriebsart oder) Fernbedienung in Betrieb gesetzt werden.

Warnung:

In diesem Gerät sind keine vom Benutzer wartbaren Teile vorhanden. Niemals Abdeckungen entfernen, außer wenn Sie dafür qualifiziert sind. In diesem Gerät sind gefährliche Spannungen vorhanden. Vor Ausführung von irgendwelchen Kundendienstarbeiten oder bei längerer Nichtverwendung des Gerätes stets den Netzstecker aus der Netzsteckdose ziehen.

- Lorsque le commutateur POWER est réglé à la position ϕ STAND-BY, l'appareil est toujours sous tension.
Lorsque le commutateur POWER se trouve sur la position ϕ STAND-BY et que le voyant STAND-BY est allumé, l'appareil est prêt à fonctionner par la télécommande (ou la minuterie).

Avertissement:

Cet appareil contient des pièces non réparables par l'utilisateur. Personne non qualifiée n'enlèvera jamais les couvercles. L'appareil contenant des organes portés à haute tension, débrancher l'appareil avant toute réparation ou en période de non-utilisation.

- Cuando el interruptor POWER está puesto en la posición ϕ STAND-BY, todavía hay tensión dentro del aparato.
Cuando el interruptor POWER está puesto en la posición ϕ STAND-BY y el indicador STAND-BY se enciende, el aparato puede ponerse en funcionamiento utilizando (el modo del temporizador o) el controlador remoto.

Advertencia:

Tenga en cuenta que dentro de este aparato no hay piezas que pueda reparar. No quite nunca las tapas a menos que se esté cualificado para hacerlo. Este aparato tiene en su interior tensiones peligrosas. Desenchufe siempre la clavija de la red del tomacorriente antes de realizar cualquier servicio de mantenimiento y cuando no se use el aparato durante un largo período de tiempo.

- När POWER-omkopplaren är i läge ϕ STAND-BY, finns nätspänning i apparaten.
Med POWER i läge ϕ STAND-BY och när STAND-BY lyser, kan apparaten slås på (med tidtagaren eller) med fjärrkontrollen.

Varning:

Apparaten innehåller inga delar som kan åtgärdas av kunden. Höljet får endast öppnas av kvalificerad personal. Apparaten innehåller farliga spänningar. Stickkontakten ska därför dras ut från nätuttaget före reparationsarbeten och bör dras ut om apparaten inte ska användas på mycket länge.

- Når POWER-kontakten er sat på ϕ STAND-BY positionen, er der stadig netspænding tilstede i apparatet.
Når POWER-kontakten er sat i ϕ STAND-BY-position, og STAND-BY indikatoren er tændt, kan apparatet startes v.h.j.a. (timerfunktionen eller) fjernbetjeningen.

Advarsel:

Apparatet indeholder ingen dele, der kan repareres af brugeren selv. Fjern aldrig kabinettet med mindre De er kvalificeret hertil. Apparatet indeholder farlig strømspænding. Træk altid stikket ud af stikkontakten før der foretages reparationer, eller hvis apparatet ikke er i brug i længere tid.

- Quando l'interruttore POWER si trova in posizione ϕ STAND-BY, all'interno dell'apparecchio c'è ancora la corrente.
Se l'interruttore POWER si trova nella posizione ϕ STAND-BY e l'indicatore STAND-BY è acceso, l'unità può venire accesa con il telecomando (o con il Timer).

Avvertenza:

L'apparecchio non contiene parti riparabili dall'utente. Non togliere mai i coperchi, a meno di non essere qualificati per farlo. All'interno dell'apparecchio ci sono tensioni pericolose, per cui si deve sempre staccare la spina del cavo d'alimentazione dalla presa di corrente prima di qualsiasi intervento di manutenzione e quando non si usa l'apparecchio per un lungo periodo di tempo.

DENNA APPARAT ÄR ANSLUTEN TILL 230 V VÄXELSTRÖM NÄR STICKPROPPEN ÄR INSKJUTEN I VÄGGUTTAGET. FÖR ATT FULLSTÄNDIGT KOPPLA IFRÅN APPARATEN, V.G. DRAG UT STICKPROPPEN.

● The letters in brackets contained in the model number indicate the colour of the product only. Operations and specifications are unaffected.
● Die Buchstaben in den in der Modellnummer enthaltenen Klammern zeigen nur die Farbe des Produktes an. Die Bedienungsschritte und die technischen Daten sind unbeeinflusst.
● Les lettres mises en parenthèses du numéro de modèle indiquent la couleur du produit concerné. Le fonctionnement et les caractéristiques ne varient pas selon la couleur du modèle.
● Las letras entre corchetes contenidas en el número del modelo indican el color del producto solamente. El funcionamiento y las especificaciones no quedan afectados.
● Bokstäver inom parantes i modellnummert anger endast produktfärg. Funktioner och tekniska data påverkas inte.
● Le lettere tra parentesi contenute nel numero del modello indicano soltanto il colore del prodotto. Il funzionamento e le caratteristiche non subiscono mutamenti.

● Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright. Please refer to relevant law in your country.
● Audio-visuelles Material kann Urheberrechte umfassen, die ohne Genehmigung des Eigentümers dieser Urheberrechte nicht aufgenommen werden dürfen. Siehe die entsprechenden nationalen Gesetze.
● Le matériel audio-visuel peut comporter des oeuvres faisant l'objet de droits d'auteur qui ne peuvent être enregistrées sans l'autorisation du possesseur du droit d'auteur, veuillez vous référer aux réglementations nationales en vigueur.
● El material audiovisual puede consistir en trabajos que tengan derechos de autor y que no deben grabarse sin la autorización del poseedor de dichos derechos de autor. Sírvase consultar las leyes aplicables en su país.
● Audiovisuellt material kan innehålla upphovsrättsarbete som inte skall mångfaldigas utan tillstånd av copyrightinnehavaren. Se den tillämpliga lagen i ditt land.
● Il materiale audio-visivo che fosse soggetto a copyright non può essere registrato senza l'autorizzazione del possessore del copyright. Si prega di attenersi alle leggi in vigore sul territorio nazionale.

● This apparatus complies with the requirements of EN 55014, 02.1987.
● Dieses Gerät stimmt mit den Bedingungen der EN 55014, 02.1987.
● Cet appareil répond aux spécifications de la EN 55014, 02.1987.
● Dit apparaat voldoet aan de vereiste EN 55014, 02.1987.
● Apparatet opfylder kravene i EN 55014, 02.1987.
● Questo apparecchio é stato prodotto in conformità alle EN 55014, 02.1987.
● Este aparelho responde às especificações da EN 55014, 02.1987.
● Este aparato cumple las especificaciones de la EN 55014, 02.1987.
● Αυτή η συσκευή τηρεί τις προδιαγραφές της EN 55014, 02.1987.

 DOLBY SYSTEM ®

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.
- Dolby Rauschunterdrückung ist hergestellt unter Lizenz von Dolby Laboratories Licensing Corporation.
- DOLBY und das doppel D symbol  sind Warenzeichen der Dolby Laboratories Licensing Corporation.
- Réduction de bruit Dolby fabriquée sous licence de Dolby Laboratories Licensing Corporation.
- DOLBY et le symbole double-D  sont des marques de Dolby Laboratories Licensing Corporation.
- Reducción de ruido Dolby fabricado bajo licencia de Dolby Laboratories Licensing Corporation.
- DOLBY y el símbolo de la doble D  son marcas de Dolby Laboratories Licensing Corporation.
- Dolby brusreducering tillverkas under licens av Dolby Laboratories Licensing Corporation.
- DOLBY och dubbel D-kännetecknet  är Dolby Laboratories Licensing Corporation:s varumärken.
- Dispositivo Dolby di riduzione del rumore fabbricato su licenza della Dolby Laboratories Licensing Corporation.
- DOLBY e il simbolo della doppia D  sono marchi della Dolby Laboratories Licensing Corporation.

The following parts mentioned in this operation manual are not included with this unit.

- External aerials
- Earth rod
- Compact disc
- Cassette tape
- Headphones
- Cotton swab
- Demagnetiser
- Cloth

Die folgenden Teile, die in dieser Bedienungsanleitung erwähnt werden, gehören nicht zum Lieferumfang.

- Außenantennen
- Erdungsstange
- Compact Disc
- Cassettenband
- Kopfhörer
- Wattestäbchen
- Entmagnetisierer
- Tuch

L'appareil est livré sans les éléments suivants qui apparaissent pourtant dans ce mode d'emploi.

- Antennes extérieures
- Piquet de terre
- Compact disc
- Cassette
- Casque
- Coton-tige
- Démagnétiseur
- Chiffon

Las piezas siguientes mencionadas en este manual de manejo no se incluyen en el aparato.

- Antenas externas
- Varilla de tierra
- Disco compacto
- Cinta cassette
- Auriculares
- Palillo de algodón
- Desmagnetizador
- Paño

Följande delar som nämns i denna bruksanvisning medföljer inte:

- Yttre antenner
- Jordledning
- CD kompaktdisk
- Kassetband
- Hörtelefoner
- Bomullstuss
- Defluxer
- Duk

Le seguenti parti citate in questo manuale di istruzioni non sono incluse in questa unità.

- Antenne esterne
- Asta di terra
- Compact disc
- Cassetta
- Cuffia
- Tamponcino di pulizia
- Smagnetizzatore
- Panno

- In order to protect this product from damage during transportation,, repack it as illustrated on the flap of the packing case.

- Um beim Transport dieses Produkt vor Beschädigung zu schützen,, das wie auf der Klappe des Verpackungskartons abgebildet umpacken.

- Afin d'éviter d'endommager ce produit pendant le transport,, le remettre dans son emballage de la façon indiquée sur le rabat du boîtier d'emballage.

- Para evitar que este producto resulte dañado durante el transporte,, está empaquetado de la forma ilustrada en la tapa de la caja.

- För att skydda produkten för skador under dess transport skall du återpacka den i packlådan enligt illustrationen på packlådans flik.

- Per evitare che questo prodotto subisca dei danni durante il trasporto, imballarlo nel modo illustrato sul coperchio dell'imballaggio stesso.

At the production line, the output power of the optical pickup is adjusted to 0.18 MILLI-WATT PLUS 40 PCTS and is maintained constant by the operation of the Automatic Power Control (APC). Even if the APC circuit fails in operation for some reason, the maximum output power will only be 15 MILLI-WATT 0.1 MICRO-SEC. Giving and accessible emission level of 42 MICRO-WATT which is still less than the limit of CLASS-1 laser product.

Die Laserausgangsleistung des optischen Abtasters wird vom Hersteller auf 0,18 MILLIWATT PLUS 40 P.C. eingestellt und durch den automatischen Leistungsregler (APC) konstantgehalten.

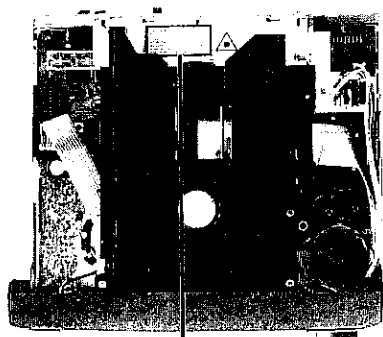
Auch wenn die APC-Schaltung aus irgendwelchen Gründen versagt, beträgt die max. Ausgangsleistung nur 15 MILLIWATT 0,1 MIKROSEK. Der ausgestrahlte und empfangene Emissionspegel von 42 MIKROWATT liegt immer noch unter dem Grenzwert von Lasererzeugnissen der Klassen 1.

À la chaîne de fabrication, la puissance de sortie du pick-up est ajustée à 0,18 MILLI-WATT PLUS 40 PCTS et elle est entretenue constante grâce à l'action de la commande automatique de puissance APC.

La puissance de sortie maximum est de 15 MILLI-WATT 0,1 MICRO-SEC même si le circuit APC fonctionne mal pour une raison quelconque. Le niveau d'émission accessible est de 42 MICRO-WATT, ce qui est toujours inférieur à la limite de CLASSE 1 du produit laser.

En la línea de producción, la potencia de salida del fonocaptor óptico se ajusta a 0,18 milivatios más 40 PCTS y se mantiene constante mediante la operación del control automático de potencia (APC).

Aunque falle el circuito APC durante la operación por alguna que otra razón, la potencia máxima de salida será sólo de 15 milivatios 0,1 microsegundos, dando un nivel de emisión accesible de 42 microvatios, que es todavía inferior al límite de los productos láser de CLASE 1.



CAUTION: INVISIBLE LASER RADIATION
WHEN OPEN AND INTERLOCKS DEFEATED.
AVOID EXPOSURE TO BEAM.

ADVARSEL: USYNLIG LASERSTRÅLING
VED ÅBNING NÅR SIKKERHEDSAFBRYDERE
ER UDE AF FUNKTION. UNDGÅ
UDSÆTTELSE FOR STRÅLING.



VORSICHT: UNSICHTBARE LASERSTRAHLUNG,
WENN ABDECKUNG GEÖFFNET UND SICHERHEITS-
VERRIEGELUNG ÜBERBÜRCKT.

ATTENTION: NE PAS REGARDER À L'OEIL NU LES
RAYONS LASER.

ATENCIÓN: RADIACIÓN INVISIBLE DE RAYOS LÁSER
CUANDO EL COMPARTIMIENTO ESTÁ ABIERTO Y EL
DISPOSITIVO DE SEGURIDAD ESTÁ INHABILITADO.
NO SE EXPONGA A LOS RAYOS.

ADVARSEL

Dette apparat må i k k e åbnes af andre end autoriserede service stationer - da der kan være risiko for usynlig laserbestråling, der kan være farlig.

"Varoitus. Suojakotelo ei saa avata. Laitte sisältää laserdiodin, joka lähettää näkymätöntä silmille vaarallista laser-säteilyä."

"Apparaten innehåller en laserkomponent som avger en laserstrålning som överstiger gränsen för laser klass 1."

Caution:

This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product.

Refer all servicing to qualified personnel.

Vorsicht:

Dieses Produkt enthält ein Niederleistungslaserapparat. Um an-dauernde Sicherheit zu sichern, niemals die Abdeckung entfernen oder versuchen, die Innenseite des Produktes zu berühren. Wenden Sie sich für alle Wartungsarbeiten an berechtigten Fach-händler.

Attention:

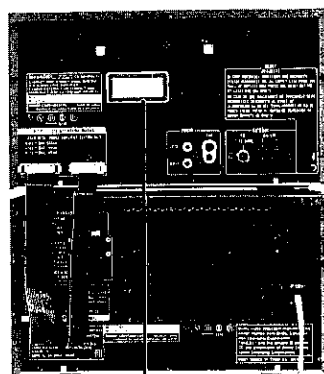
Ce produit contient un dispositif émettant un laser à faible puis-sance. Pour assurer la sécurité, ne pas enlever le couvercle ni accéder à l'intérieur du produit.

Pour toute réparation, s'adresser à une personne qualifiée.

Atención:

Este producto contiene un dispositivo láser de baja potencia. Para asegurar la seguridad continua, no extraiga la cubierta ni acceda al interior del producto.

Para todas las operaciones de reparación, consulte a una per-sona cualificada.



CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

LASER KLASSE 1
CLASSE 1
PRODUIT LASER
LUOKAN 1 LASERLAITE
KLASSE 1 LASERAPPART

INTRODUCTION

Thank you for purchasing this SHARP product. We hope it will give you many years of trouble-free enjoyment. For the best performance, read this manual carefully. It will guide you in operating your SHARP product.

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PRECAUTIONS

- Do not use oil, solvents, petrol, paint thinners or insecticides on the unit.
- Do not expose the unit to moisture or to temperatures higher than 60°C (140°F).
- Do not expose the unit to extreme low temperatures.
- Keep the unit away from direct sunlight.
- Keep the unit away from strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) that generates electrical noise.
- Hold the AC power plug by the head when removing it from the AC outlet, since pulling the lead can damage internal wires.
- Remove the AC power plug from the wall socket before cleaning the heads, pinch rollers, etc.
This unit contains dangerous voltages.
Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.
- Use the unit on a firm, level surface free from vibration.
- If the unit does not work properly whilst in use, set the POWER switch to  STAND-BY and then to ON again.

Warning:

The voltage used must be the same as that specified on this unit. Using this product with a higher voltage than that which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

Condensation

Sudden temperature changes and storage or operation in an extremely humid environment may cause condensation inside the cabinet. Condensation can cause the unit to malfunction. Follow the procedure below to eliminate condensation.

● CD pickup

Leave the power on with no disc in the unit until normal playback is possible (about 1 hour).

● Tape head

Leave the power on with no cassette in the unit until normal playback is possible (about 1 hour).

Note:

If condensation forms on the tape head, foreign matter may accumulate during use.

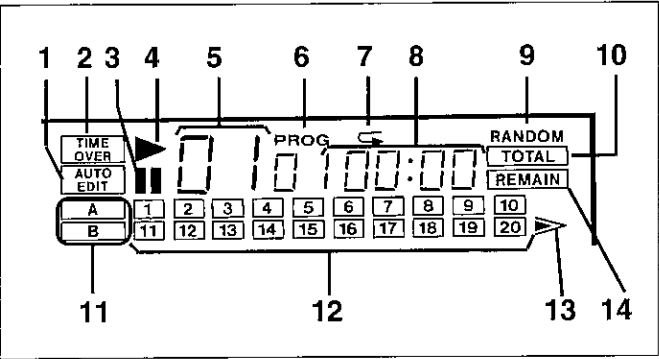
● Remote control

Wipe off condensation on the transmitter window with a soft cloth before operating the unit.

Volume control

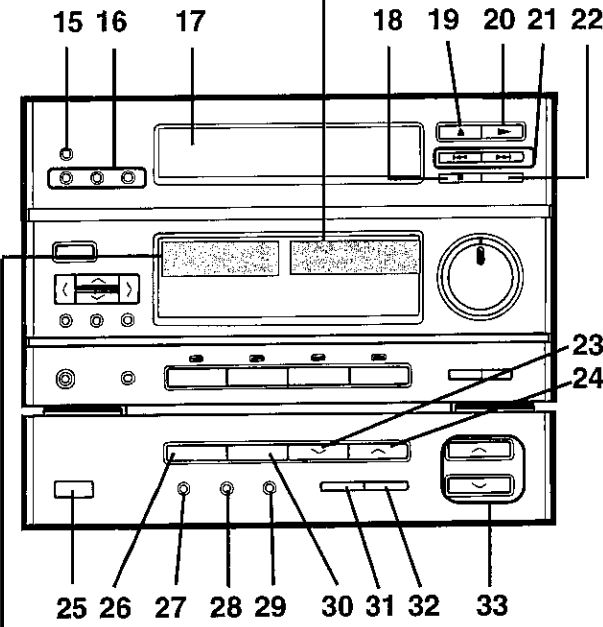
The sound level at a given volume setting depends on a combination of speaker efficiency, location and many other factors. Care should be taken to avoid exposure to sudden high levels of sound, such as occur when turning on the unit with the volume control setting at high, and to continuous high levels of sound.

NAMES OF CONTROLS AND INDICATORS



■ CD control section

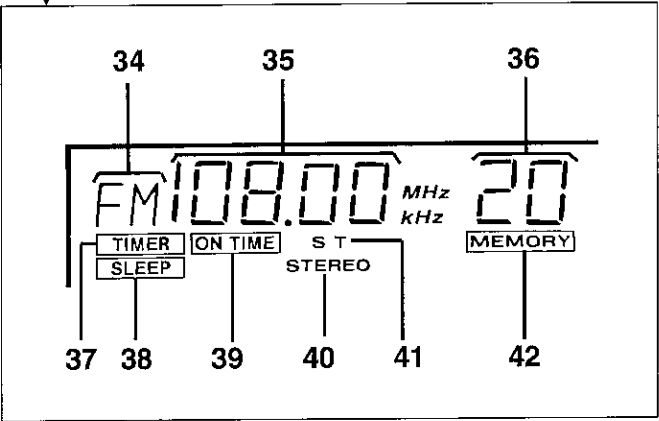
1. Auto Editing Indicator
2. Time Over Indicator
3. Pause Indicator: II
4. Play Indicator: ▶
5. Track Number Indicator
6. Programme Indicator
7. Repeat Indicator: ◁
8. Minutes and Seconds Indicator
9. Random Play Indicator
10. Total Time Indicator
11. Tape Side Indicators
12. Music Schedule Indicators
13. Music Schedule Over Indicator: ▶
14. Remaining Time Indicator



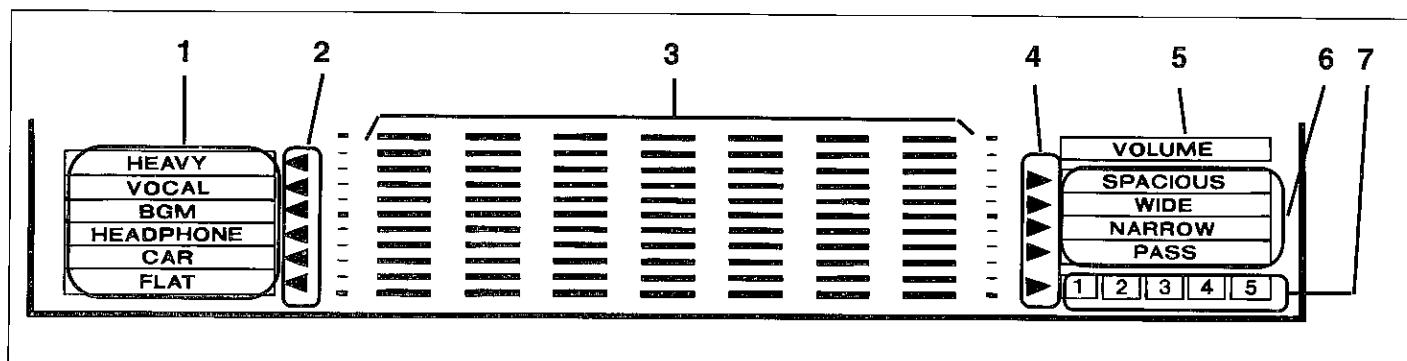
15. Auto Editing Button
16. Tape Length Selector Buttons
17. Disc Table
18. Stop Button: ■
19. Open/Close Button: ▲
20. Direct Play Button: ▶
21. Track Up/Down Buttons: ◀◀ / ▶▶
22. Random Play Button

■ Timer/Tuner control section

23. Tuning Down/Hour Button
24. Tuning Up/Minute Button
25. Remote Control Sensor
26. Band Selector Button
27. Display Button
28. Timer Button
29. Sleep Button
30. Auto Memory Button
31. Memory/Time Adjust Button
32. FM Mono-Stereo/Clear Button
33. Preset Up/Down Buttons



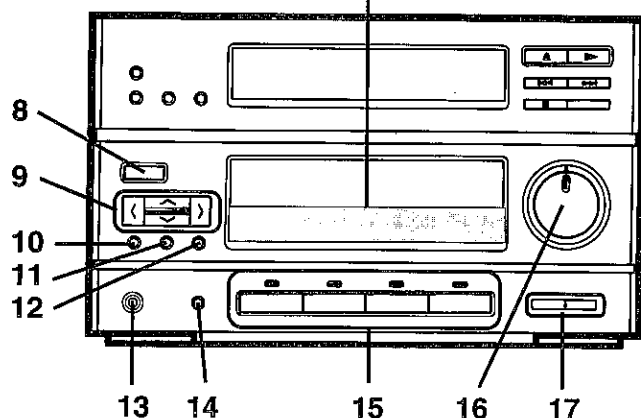
34. Band Indicator
35. Radio Frequency/Clock Display
36. Preset Channel Indicator
37. Timer Set Indicator
38. Sleep Indicator
39. On Time Indicator
40. FM Stereo Mode Indicator
41. FM Stereo Indicator
42. Memory Indicator



■ Graphic equalizer control section

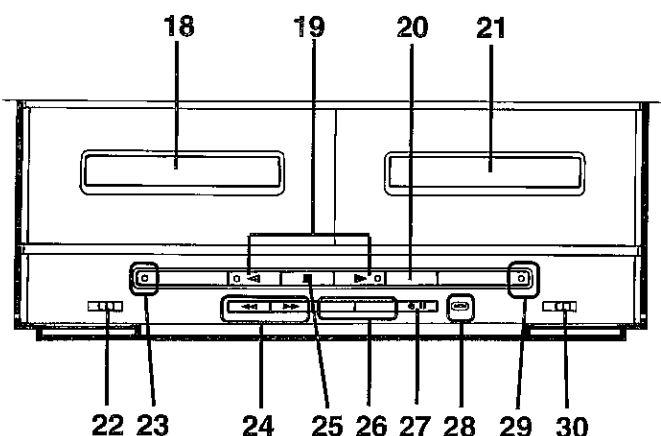
1. Preprogrammed Equalizer Mode Indicators
2. Preprogrammed Equalizer Cursor Point Indicator
3. Level Meters
4. Sound Expander/User Memory Cursor Point Indicator
5. Volume Indicator
6. Sound Expander Mode Indicators
7. User Memory Indicators

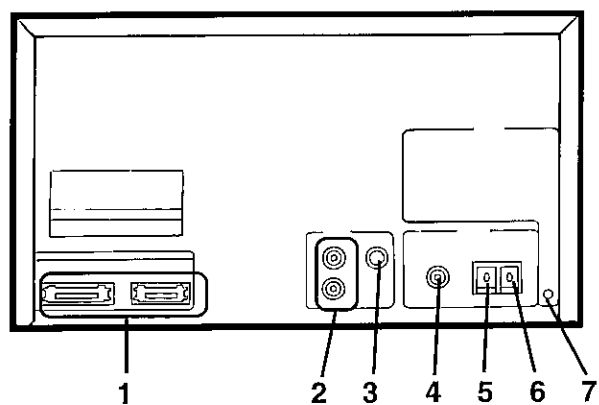
8. Power Switch and Stand-by Indicator
9. Sound Cursor Control Buttons
10. Graphic Equalizer Control Button
11. Graphic Equalizer Flat Button
12. Memory Button
13. Headphones Socket
14. Source Direct Button
15. Direct Function Buttons and Indicators
16. Volume Control
17. Balance Control Buttons



■ Tape control section

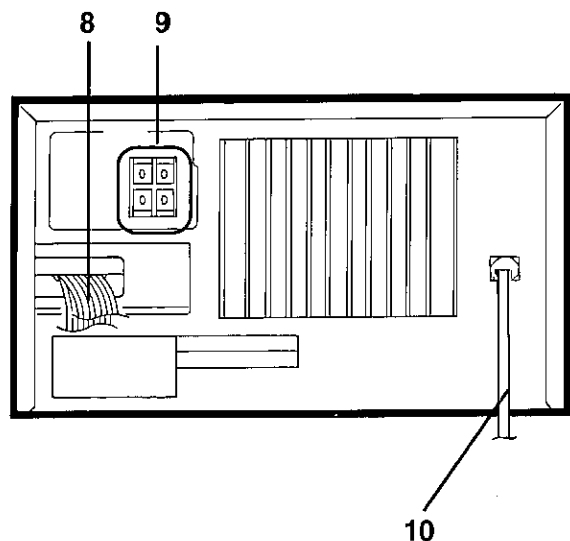
18. TAPE 1) Cassette Compartment
19. Direct Play Buttons and Indicators
20. Tape 1/2 Select Button
21. TAPE 2) Cassette Compartment
22. Reverse Mode Switch
23. TAPE 1) Operate Indicator
24. Fast Wind Buttons: ◀▶
25. Stop Button: ■
26. One Touch Editing Buttons
27. Record Pause Button: ●||
28. Record Indicator
29. TAPE 2) Operate Indicator
30. Dolby NR Switch





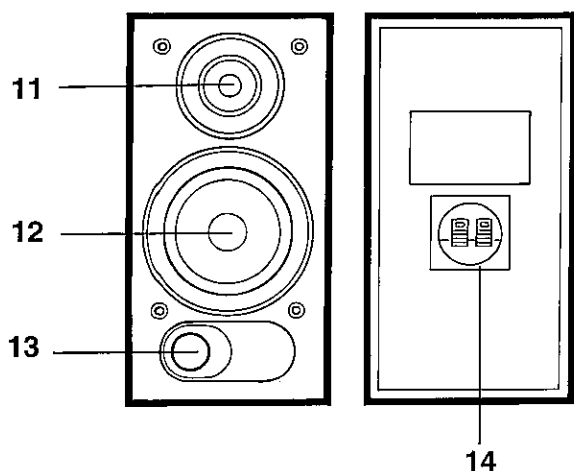
■ Rear panel of CD player/pre-amplifier section

1. System Control Sockets
2. Phono Input Sockets
3. Phono Earth Terminal
4. FM 75 ohms Aerial Socket
5. MW/LW Aerial Earth Terminal
6. MW/LW Aerial Terminal
7. Reset Button



■ Rear panel of deck/power amplifier section

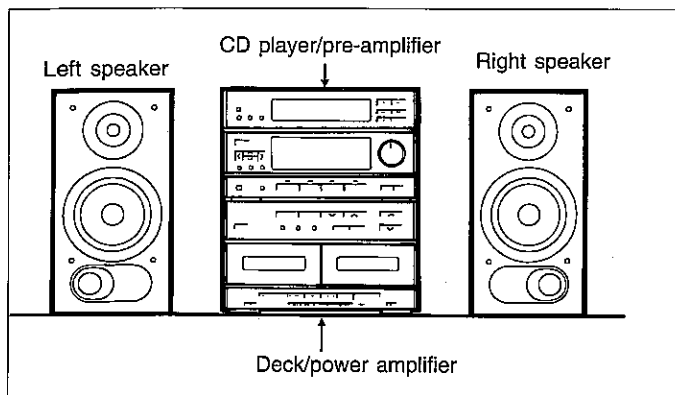
8. System Control Connectors
9. Speaker Terminals
10. AC Supply Lead



■ Speaker section

11. Tweeter
12. Woofer
13. Bass Reflex Port
14. Speaker Terminals

PREPARATION FOR USE



■ Placing the system

This system is designed to be stacked vertically.

Notes:

- If the system is stacked vertically, be sure to place the CD player/pre-amplifier on top.
- If the system is put in a rack, allow a space of at least 3 cm (1-3/16") above and 10 cm (4") at the back of the unit.

■ Aerial connection

(1) Supplied FM aerial

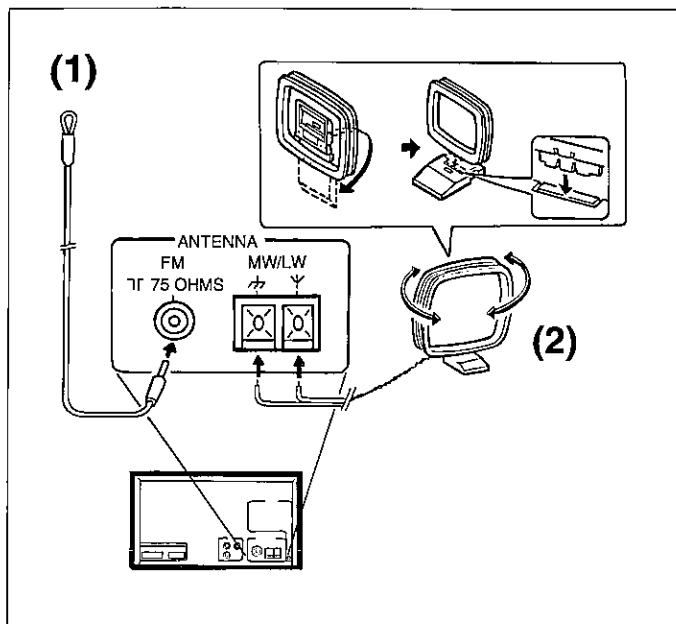
Connect the FM aerial wire to the FM 75 OHMS socket and direct the FM aerial wire to the direction where the strongest signal can be received.

(2) Supplied MW/LW loop aerial

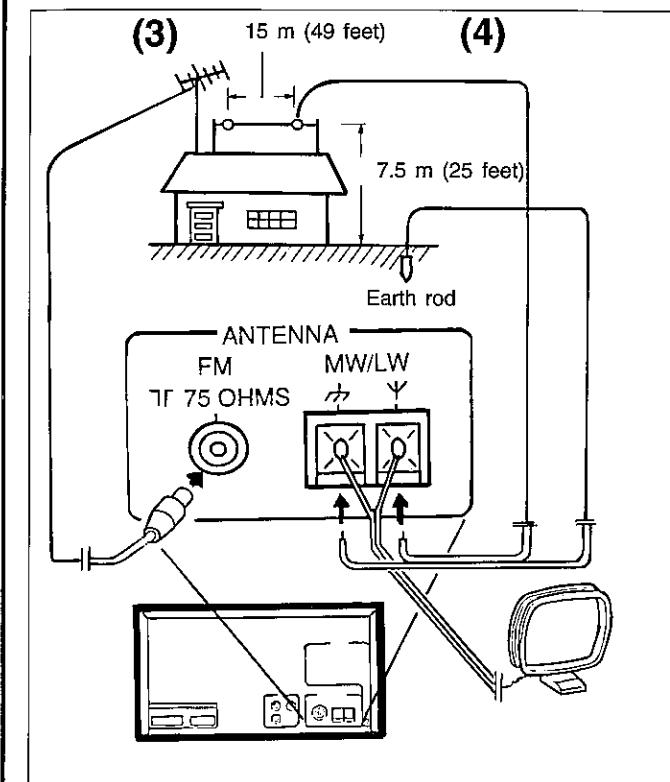
Connect the MW/LW loop aerial wire to the Υ and Λ terminals. Position the MW/LW loop aerial for optimum reception. Place the MW/LW loop aerial on a shelf etc., or install it on the rack or wall with screws (not supplied).

Notes:

- When static is still heard even after adjusting the position of the MW/LW loop aerial, try reversing the connector (right to left).
- Do not place the MW/LW loop aerial on the unit. It will result in noise generation, since the unit is equipped with digital electronics. Place the MW/LW loop aerial away from the unit.



For European customers



(3) External FM aerial

Use an external FM aerial if you need better reception. Consult your dealer.

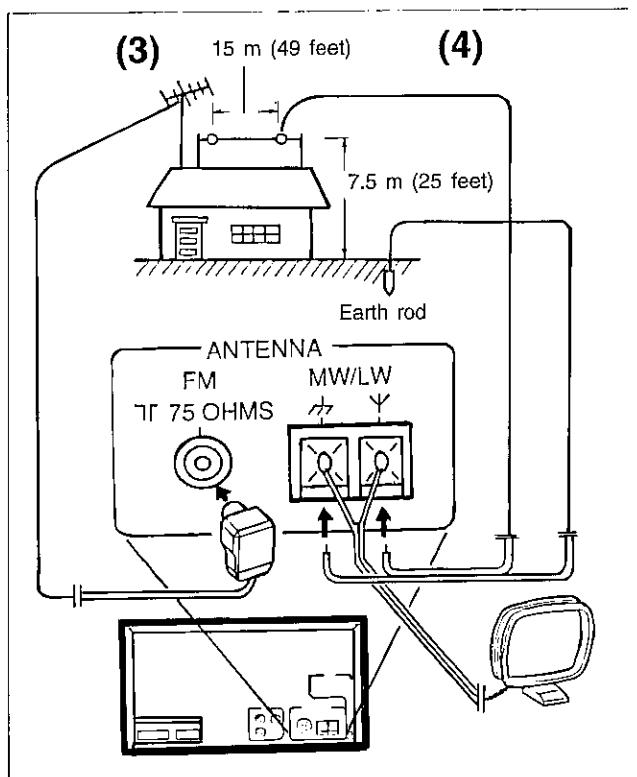
(4) External MW/LW aerial

Use an external MW/LW aerial if you need better reception. Consult your dealer.

Note:

When using an external MW/LW aerial, be sure to keep the wire of the MW/LW loop aerial connected.

For UK customers



(3) External FM aerial

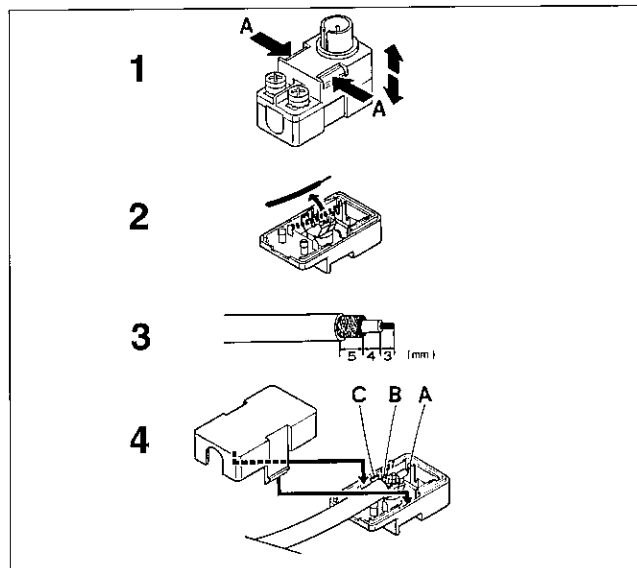
Use an external FM aerial if you need better reception.
Consult your dealer.

(4) External MW/LW aerial

Use an external MW/LW aerial if you need better reception.
Consult your dealer.

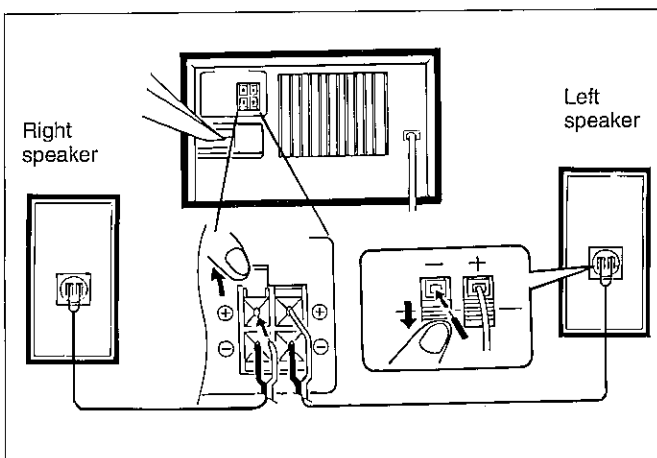
Note:

When using an external MW/LW aerial, be sure to keep the wire of the MW/LW loop aerial connected.



To connect an external FM aerial (75-ohm coaxial cable)

- 1 Squeeze in the tabs (indicated "A") on the sides of the conversion adaptor in order to open the adaptor.
- 2 Cut and remove the red wire which is connected inside the adaptor.
- 3 Prepare the end of the 75-ohm coaxial cable as shown here.
- 4 Secure the core wire of the coaxial cable at position "A", the braided wire at position "B", and the cable insulation at position "C". Crimp the tabs at "B" and "C" with pliers and close the adaptor.
- 5 Connect the conversion adaptor to the FM 75 OHMS socket.

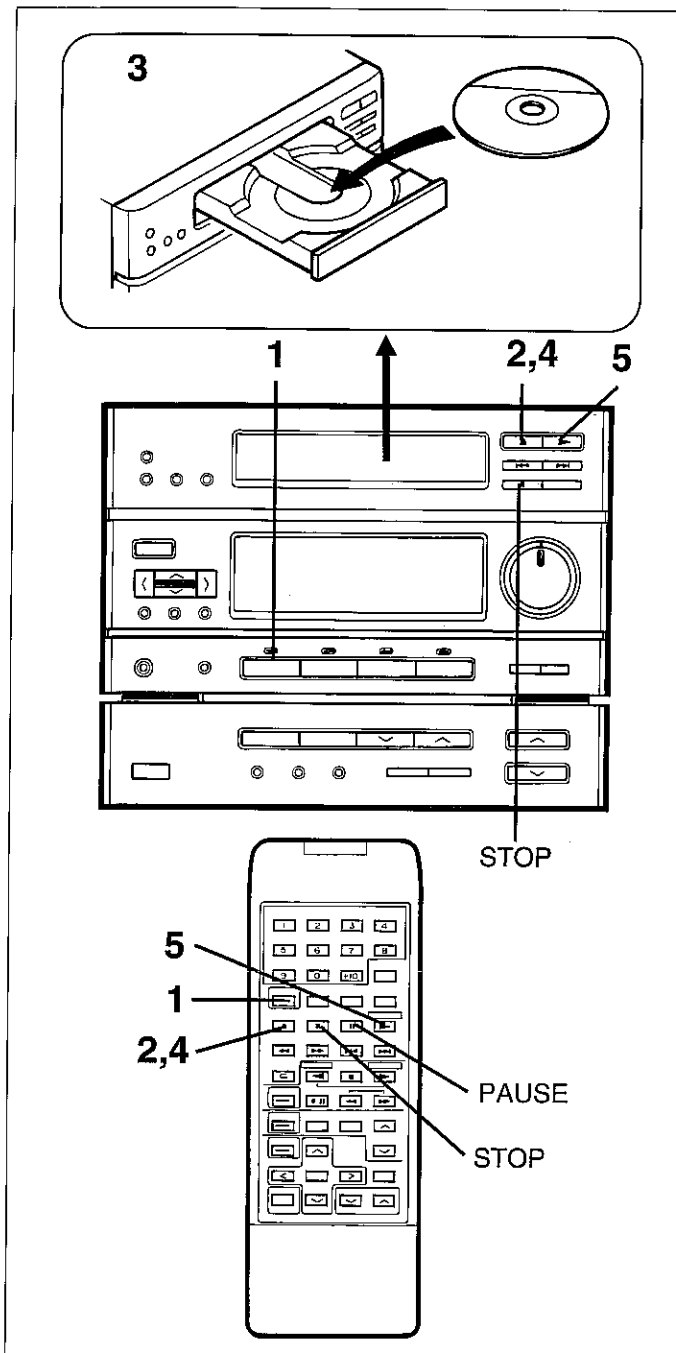


■ Speaker connection

Connect each speaker wire to the SPEAKER terminals as shown.
(Red wire → plus (+) terminal, black wire → minus (-) terminal)

Cautions:

- Do not let the bare speaker wires touch each other as this could damage the amplifier and/or speakers.
- When connecting the speakers to the unit, be sure to connect the speaker wires properly. Do not mistake the right channel for the left channel and the plus (+) terminal for the minus (-) terminal.
- Use these SPEAKER terminals for CP-S600H only, do not connect it to speakers other than CP-S600H.



■ CD playback

1 Press the CD button.

- When the CD button is pressed, the power will be automatically turned on.

2 Press the OPEN/CLOSE button to open the disc table.

3 Place a disc on the table, label side up.

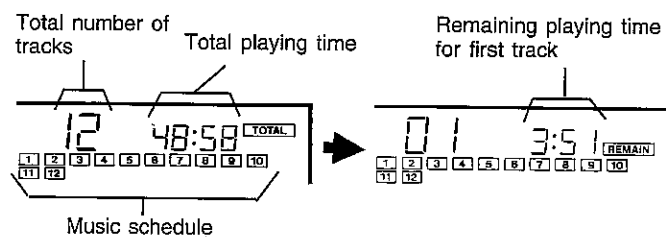
- 8 cm (3") discs may be played without an adaptor.

4 Press the OPEN/CLOSE button to close the disc table.

- The total number of tracks and the total playing time will be displayed for several seconds.

- The music schedule will be displayed only for the number of tracks on the disc.

- If the compact disc contains more than 21 tracks, the "▶" indicator will light up on the music schedule.



5 Press the DIRECT PLAY button to start playback from track 1.

- The "▶" indicator will appear and playback will begin. As the playback of each track on the music schedule is finished, that track number will go out.

Direct playback:

If a compact disc is already in the disc table, just press the DIRECT PLAY button to automatically turn on the power and start playback.

To interrupt playback:

1 Press the PAUSE button.

- The "||" indicator will light up.

2 Press the DIRECT PLAY button to resume playback from the same point.

To stop playback:

Press the STOP button.

- The display will return to the original indications.

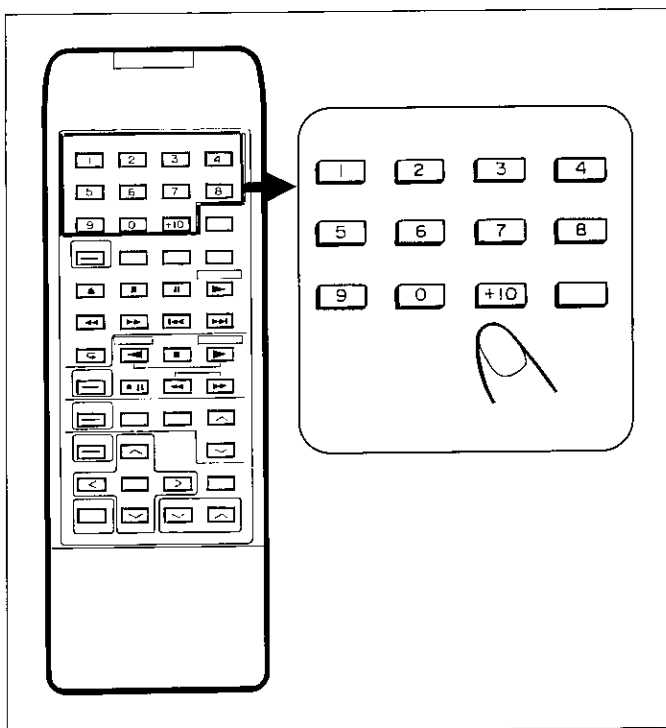
To switch the unit off after use:

Set the POWER switch to $\odot$ STAND-BY.

Precautions:

- If the disc is damaged, dirty, or loaded upside down, the display will show error signs as follows:
 - "no disc" is displayed.
 - The total track number or "01" is not displayed.
 - "Er 0:00" is displayed. Clean, replace, or load the disc properly.
- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- Subjecting the unit to shock or vibration can cause mistracking.

- Playing some compact discs at high volume can cause mistracking. In this case, listen at lower volume.
- Do not push the disc table whilst it is moving.
- Press the OPEN/CLOSE button if your finger, a disc, or other object is caught by the table. (The table motor will stop after 4 seconds even if the OPEN/CLOSE button is not pressed.)
- If the power fails whilst the table is open, wait until the power supply returns or gently push the table manually to close it.
- The temperature range for playing compact discs is recommended to be 5°C (41°F) - 35°C (95°F).



■ Direct-selection play

By using the track number input buttons on the remote control, any track you wish to listen to can be played directly.

- 1 Use the track number input buttons to select the desired track number.

A. For example, to choose selection 12

- (1) Press the "+10" button.
- (2) Within 3 seconds, press the "2" button.

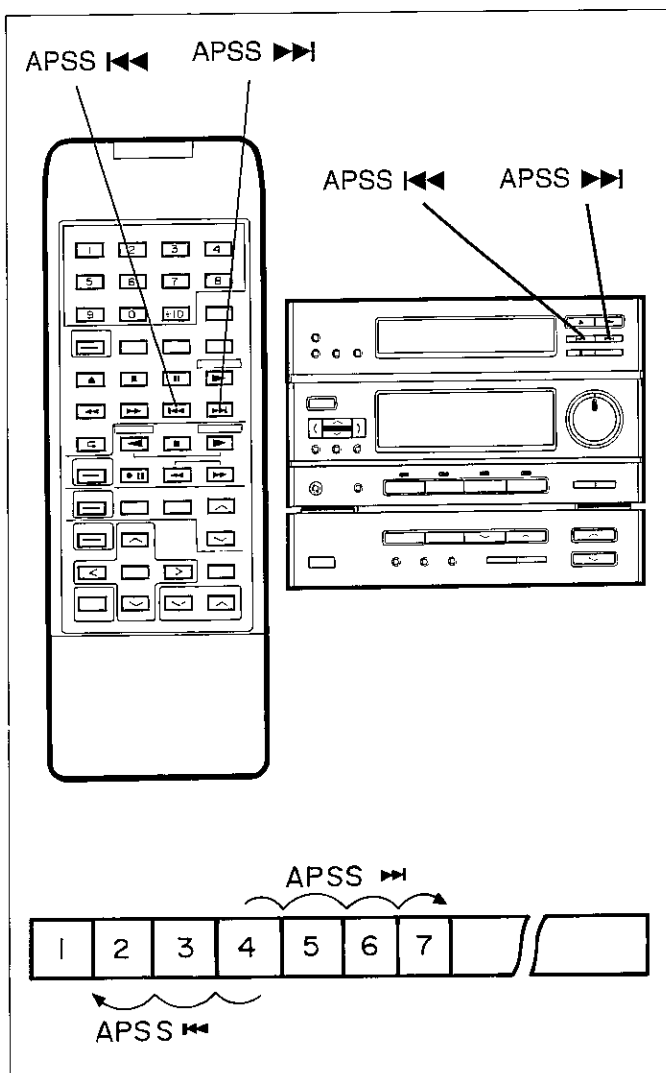
B. For example, to choose selection 20

- (1) Press the "+10" button.
- (2) Within 3 seconds, press the "+10" button again.
- (3) Within 3 seconds, press the "0" button.

- 2 The beginning of the selected track will be found and play will begin automatically.

Note:

A track number higher than the number of tracks on the disc cannot be selected. Also, if a higher track number is selected whilst the disc table is open, play will begin from track 1 when the disc table is closed.



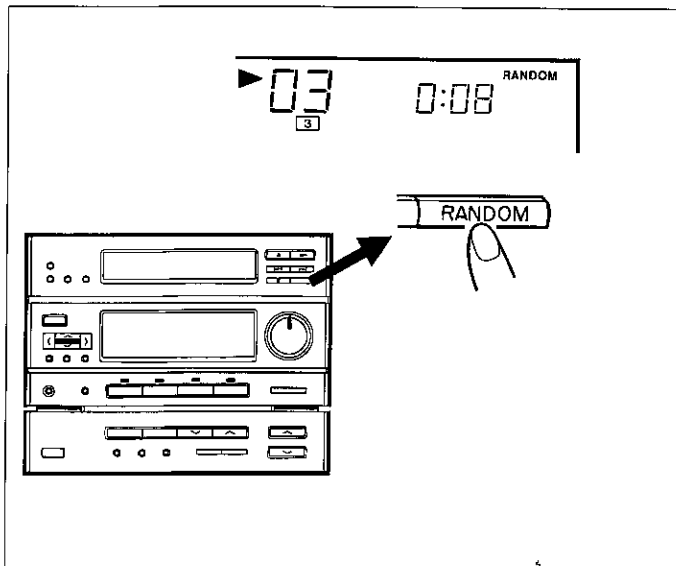
■ APSS (Auto Program Search System)

APSS automatically locates the beginning of any track.

- 1 Load a disc and begin playback.
- 2 Press the APSS >>> button to forward or APSS <<< button to reverse through the CD.
 - The "▶" indicator flashes whilst searching for the track beginning.
 - If the APSS >>> button or APSS <<< button is pressed repeatedly during playback, playback will begin from the beginning of the track shown in the track number indicator.
 - If the APSS >>> button or APSS <<< button is pressed whilst in the stop mode, the CD player will stop at the beginning of the track shown in the track number indicator. Press the DIRECT PLAY button to begin playback.

Note:

APSS will move forward or backward from any point on the disc before playback begins. It will not move forward during playback of the final track.



■ Random play

The tracks on the disc can be played in random order.

- 1 Load a disc and close the disc table.
- 2 Press the RANDOM button to begin random play.

- The "RANDOM" indicator will light up.
- As the tracks to be played are selected, the track numbers "[1]", "[2]", "[3]" ... "[20]" in the music schedule will flash on and off and the track number display will change accordingly.

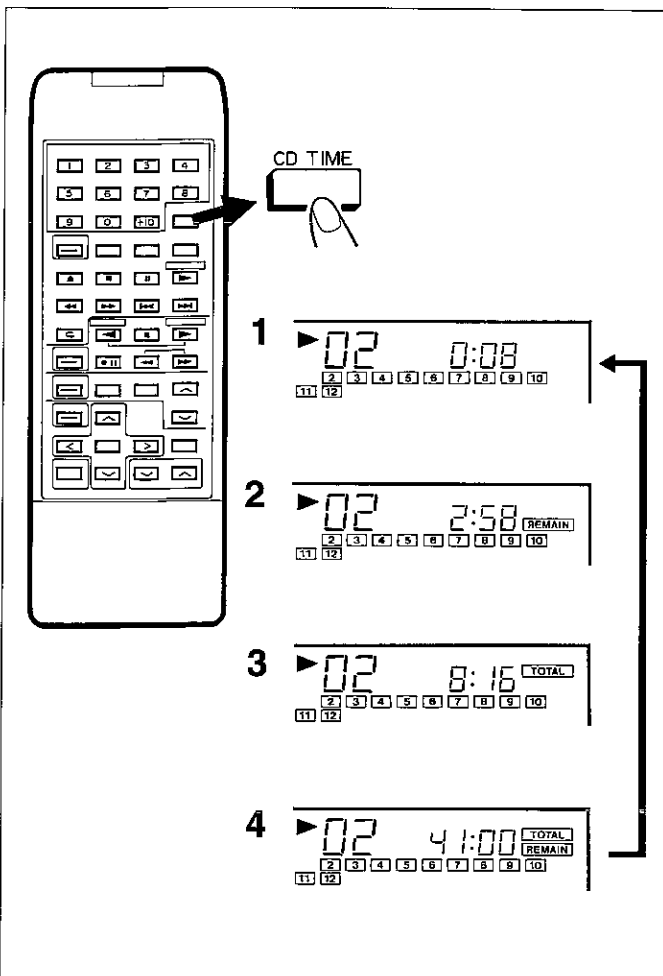
To cancel the random play:

Press the DIRECT PLAY button.

- The "RANDOM" indicator goes out.

Notes:

- When using random play or repeat play, be sure to press the STOP button, or switch off the power when you have finished listening. Otherwise, the CD(s) will be played endlessly.
- During APMS operation, random play is not possible.



■ Switching the time display

Each time the CD TIME button is pressed, the display will change as described below.

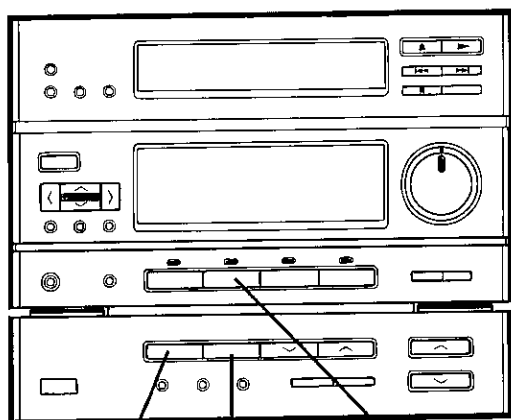
[Example]

When the second track is being played back.

- 1 The elapsed play time for each track will be displayed.
- 8 seconds have passed since the beginning of the second track.
- 2 The remaining play time for the current track will be displayed.
- 2 minutes and 58 seconds remain till the end of the second track.
- 3 The total play time up to the current track will be displayed.
- 8 minutes and 16 seconds have passed since the beginning of the first track.
- 4 The total remaining play time from the point being played at that time will be displayed.
- 41 minutes remain till the end of the disc.

Notes:

- During random play, the elapsed play time for each track will be displayed, and the display cannot be switched.
- When a disc that has more than 21 tracks is used, "----" will be displayed in the following cases:
 - ① When an attempt is made to display a track number higher than 21 using the APSS ►►► button when the disc is stopped.
 - ② When an attempt is made to display the remaining time whilst a track after 21st is being played back.
 - ③ When a track number higher than 21 is programmed in APMS. (When the total play time exceeds 100 minutes.)



2 3 1

■ Auto scan memory

You can store up to 30 stations (20 FM stations and 10 MW or LW stations) and recall them together with their FM reception mode (stereo or mono), at the push of a button.

1 Press the TUNER button.

- When the TUNER button is pressed, the power will be automatically turned on.

2 Select the desired frequency band. (FM, LW or MW)

3 Press the AUTO MEMORY button.

- The "MEMORY" indicator will flash.
- After auto scan memory is finished, the "MEMORY" indicator goes out, and you can hear the broadcast station which was stored last into memory.
- If fewer than 20 FM stations or 10 MW or LW stations have been stored in memory, auto scan memory will stop at the highest frequency and reception mode will begin.
- When the desired broadcasting station is stored in memory and then stored again in auto scan memory, the previous contents are erased.

Note:

The auto scan memory function may be affected by radio interference generated by electric equipment.

For example, home computers, facsimiles, etc.

If you have difficulty using the auto scan memory (auto memory), move the unit away from electric equipment and adjust the position of the aerial to minimize the interference. Should you be unable to minimize the interference, please use the manual memory function as described below.

■ Manual memory

When auto scan memory does not function due to a weak signal, frequencies are deviated due to a strong signal, or the memory contents are changed partially, perform the following operation.

1 Perform steps 1 - 2 of the "Auto scan memory" section.

2 Use the TUNING (∨ or ∧) button to tune into the desired station.

Auto tuning:

When the TUNING (∨ or ∧) button is pressed for more than 0.5 second and then released, the tuning stops at the first receivable broadcast station.

Manual tuning:

Press the TUNING (∨ or ∧) button multiple times to adjust the frequency display to the frequency of the desired station.

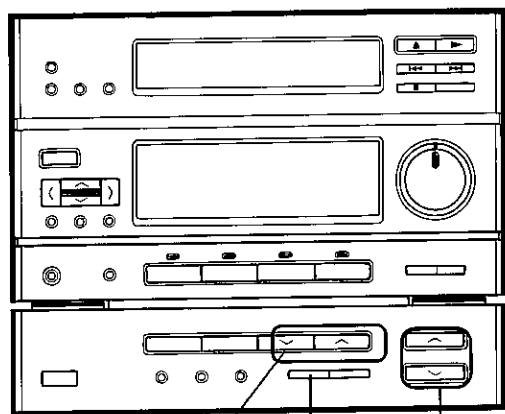
3 Press the MEMORY button, so that the display's "MEMORY" and "preset channel number" indicators flash.

4 Press the PRESET (∨ or ∧) button until the preset number to be programmed flashes in the display.

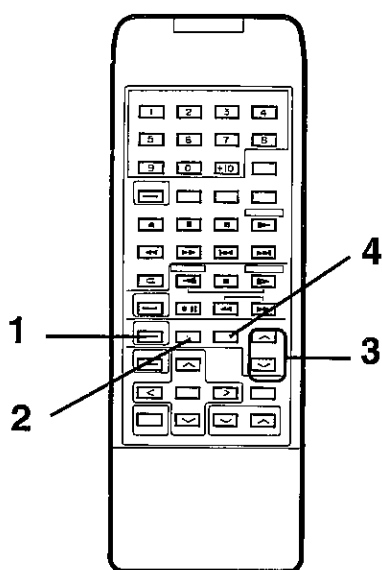
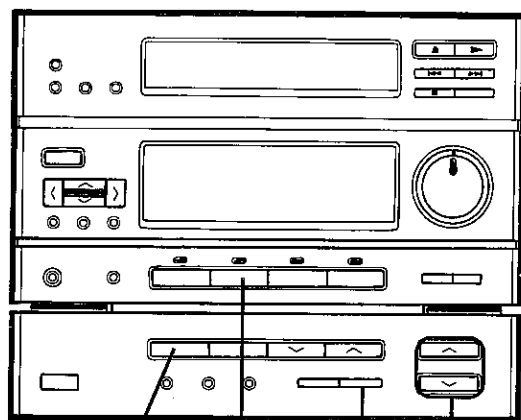
5 Press the MEMORY button to store that station in the selected station preset number memory.

- 20 FM stations can be preset (preset channels 1 through 20).
- 10 MW or LW stations can be preset (preset channels 1 through 10).
(There are no presets 11 through 20 for MW or LW stations.)

6 Repeat steps 1 - 5 to set the other preset stations, or to change a preset station.



2 3,5 4



■ To recall a memorised station

- 1 Press the TUNER button.
 - 2 Select the desired frequency band. (FM, LW or MW)
 - 3 Press the PRESET (✓ or ✕) button to recall the desired preset channel number. The caption FM, LW or MW and a frequency will appear in the display.
 - 4 To set to FM stereo, press the FM MONO/STEREO button so that the "STEREO" indicator on the display lights up. If the reception is poor, press the FM MONO/STEREO button so that the "STEREO" mode indicator goes out.
- The "ST" indicator lights up when an FM broadcast is in stereo.
 - Please note that when the unit is being tuned in the FM stereo mode, interim station noise as well as weak stations are suppressed. Only in the FM monaural mode, can weak and noisy stations be received.

To switch the unit off after use:

Set the POWER switch to  STAND-BY.

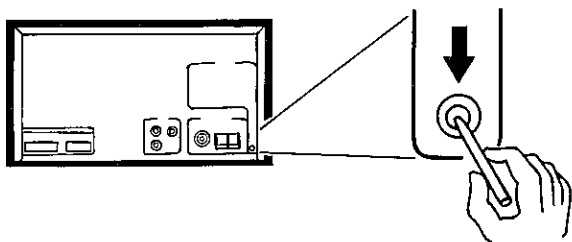
Notes:

- Memory recalls the last station received even after changing the band selector button or setting the POWER switch to  STAND-BY.
- After a power failure that lasts for some time, the contents of the memory will be lost. When power is restored, store your selections in memory again.
(For power failures of just a few hours, the contents of the memory will not be lost.)

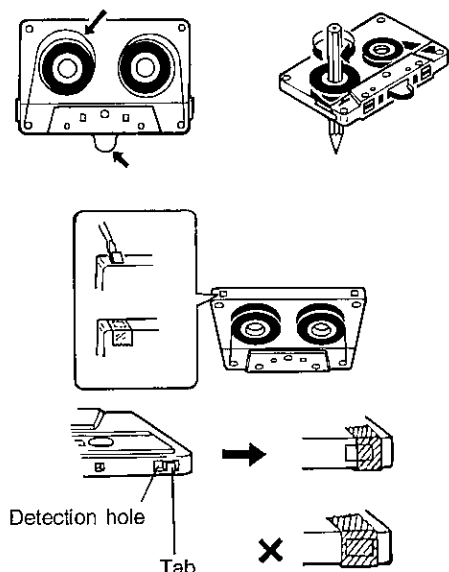
■ To clear all memorised stations

To clear all the memory contents or when the display is incorrect:

- 1 Set the POWER switch to  STAND-BY.
- 2 Disconnect the AC supply lead from the AC outlet.
- 3 Press the RESET button for at least 60 seconds.



CASSETTE OPERATION



General information

- Do not use C-120 tapes, tapes with internal reels, or poor-quality tapes, since they can cause malfunctions.
- Before loading a tape into the cassette compartment, tighten the slack tape with a pen or pencil.
- Cassettes have removable tabs which prevent accidental recording or erasing from taking place. Removing the tab on the top left protects the side facing you from erasure. Cover the tab holes with adhesive tape to erase or record again.
- TAPE 1: Playback only.
TAPE 2: Playback or recording.
- This deck features an auto tape selector. Just load the tape, and the tape formula being used will be sensed automatically.
- When covering erasure prevention tab holes, do not cover the chrome and metal detection holes. Otherwise, the deck will treat tape as normal tape.

TAPE 1 or TAPE 2 playback

- 1 Press the TAPE button.
- 2 Open the cassette door by pushing the area marked "PUSH EJECT".
- 3 Load the cassette into the TAPE 1 or TAPE 2 cassette compartment.
- 4 Set the DOLBY NR switch to ON if the tape has been recorded with Dolby noise reduction, and to OFF if Dolby NR was not used.
- 5 Set the REVERSE MODE switch as desired.

The REVERSE MODE switch can be operated before or during playback, and changes tape playback as follows:

	→ ←	↶	↷
	Side A only	Side A → Side B	Side A → Side B Continuous play
	Side B only	Side B only	Side B → Side A Continuous play

- 6 Press the DIRECT PLAY ► button to listen to side A, or the DIRECT PLAY ◀ button for side B.

Direct playback:

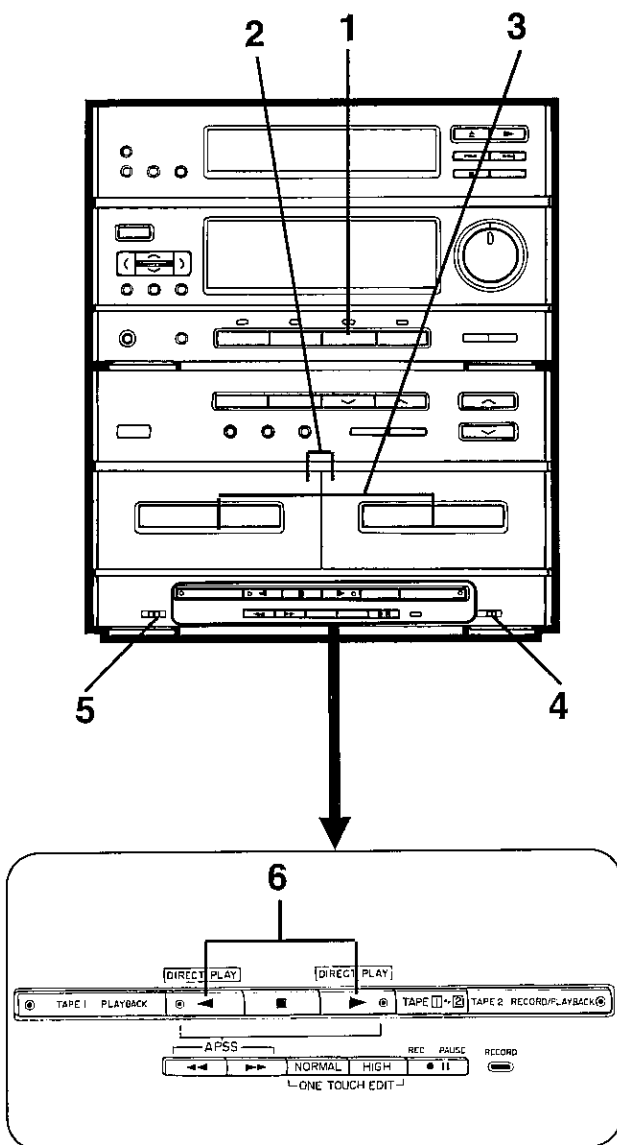
If a cassette tape is already in the cassette compartment, just press the DIRECT PLAY button to automatically turn on the power and start playback.

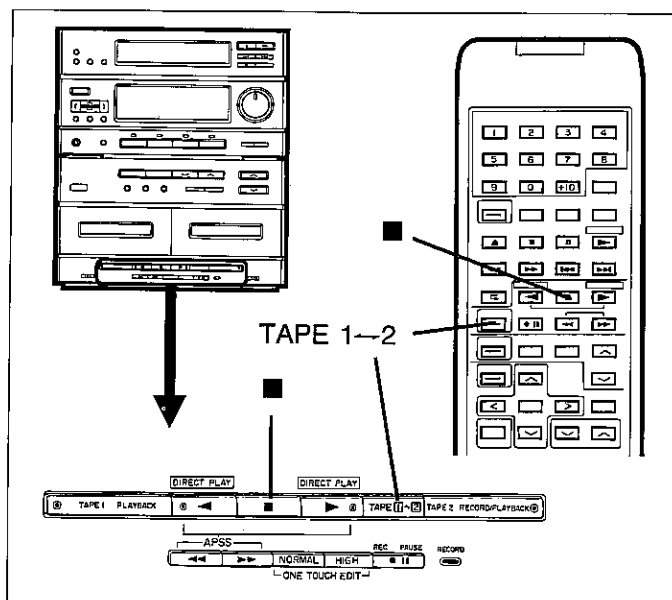
To stop playback:

Press the ■ button.

Note:

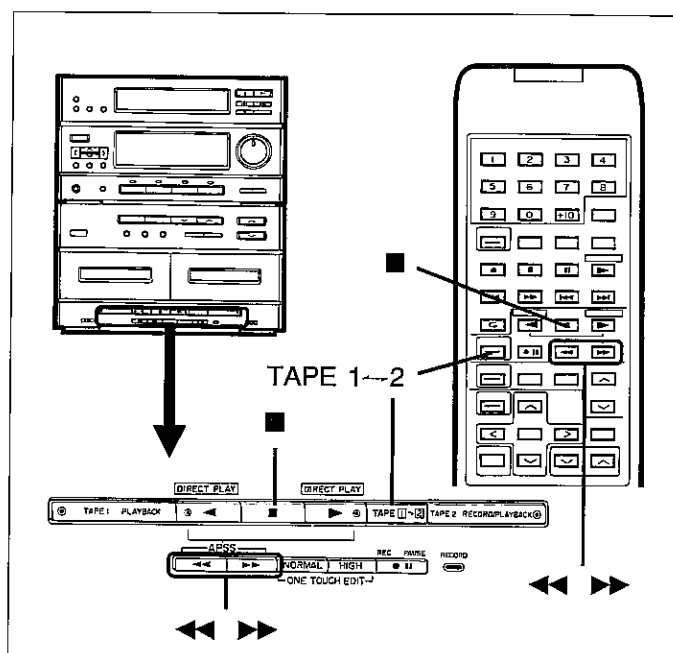
- When removing the cassette tape, press the ■ button, and then open the cassette compartment.





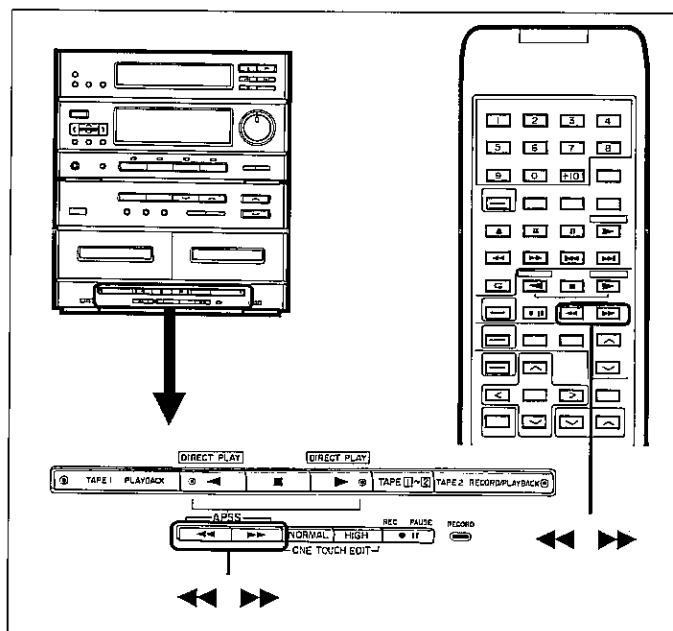
■ TAPE 1→2 button

With cassettes in both decks, press the ■ button, then the TAPE 1→2 button to switch operation from one deck to the other. With cassettes in either or both decks, the TAPE 1/2 indicator lights up to show which deck is in operation.



■ Winding the tape

First press the ■ button, then the TAPE 1→2 button to select the desired tape. Next press the ◀◀ or ▶▶ button to wind the tape. Press the ■ button to stop.



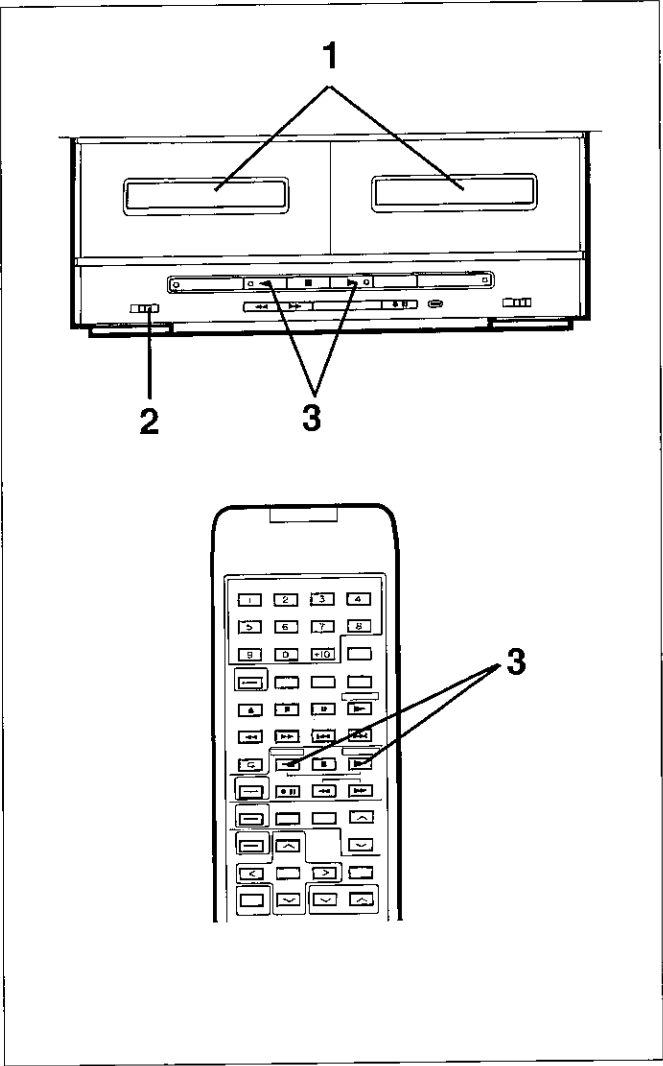
■ Auto Program Search System (APSS)

Carry out the following operation during playback to find desired points on the tape.

- 1 To listen to the same section, press the ◀◀ or ▶▶ button in the direction opposite from that of current playback.
- 2 To listen to the next section, press the ◀◀ or ▶▶ button in the same direction as that of current playback.

Notes:

- APSS may not work for tapes with
- Material with long pauses or quiet passages.
 - Low recording levels or excessive noise.
 - Pauses of less than 3 seconds between selections.



Continuous playback

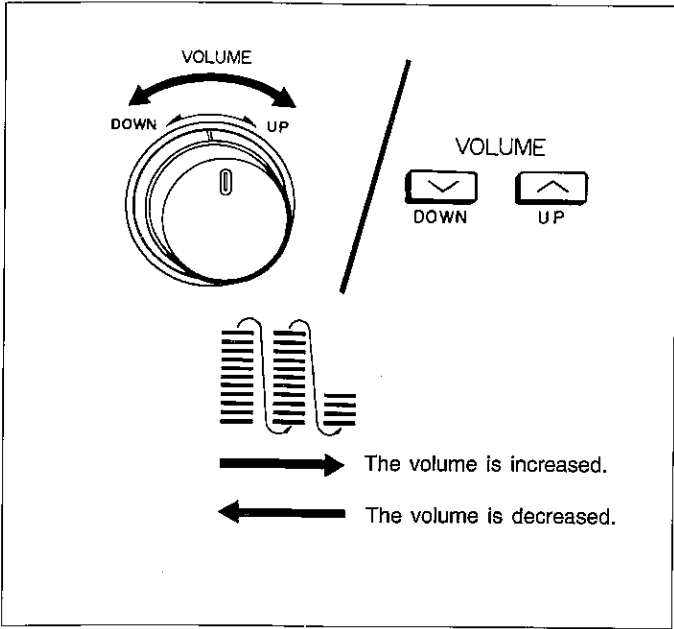
1 Load the cassettes into the TAPE 1 and TAPE 2 cassette compartments.

2 Set the REVERSE MODE switch as desired.

The REVERSE MODE switch can be operated before or during playback, and changes tape playback as follows:

DIRECT PLAY	TAPE 1 Side A → B → TAPE 2 Side A → B Continuous play	TAPE 1 Side A → B → TAPE 2 Side A → B Continuous play
DIRECT PLAY	TAPE 1 Side B → TAPE 2 Side A → B	TAPE 1 Side B → TAPE 2 Side A → B → TAPE 1 Side A Continuous play

3 Press the DIRECT PLAY ► button to listen to side A, or the DIRECT PLAY ◀ button for side B.



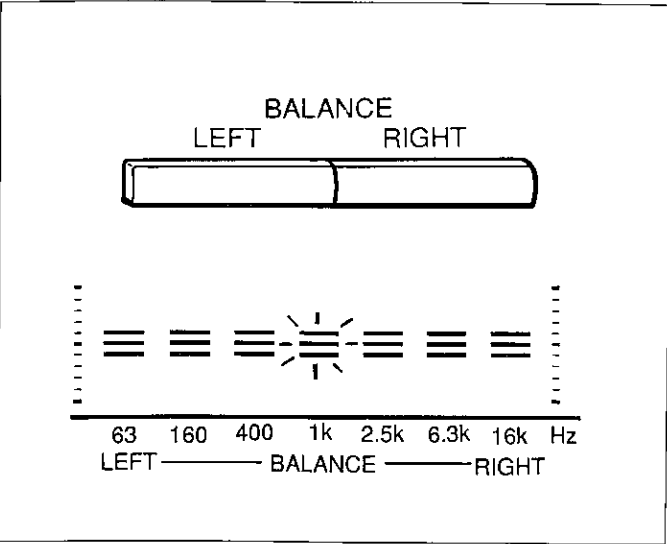
■ Volume

Main unit operation

Rotate the VOLUME control towards UP to increase the volume, and towards DOWN to decrease the volume.

Remote control operation

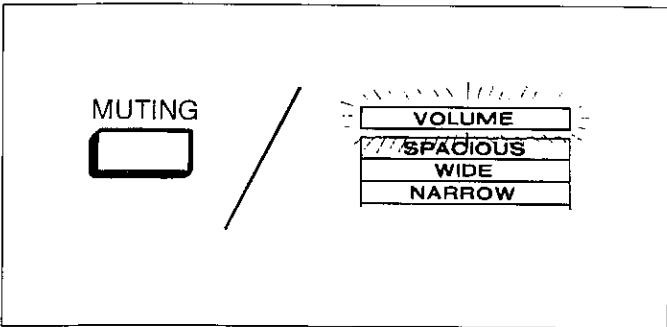
Press the VOLUME UP button to increase the volume and the VOLUME DOWN button to decrease the volume.



■ Balance

Main unit operation

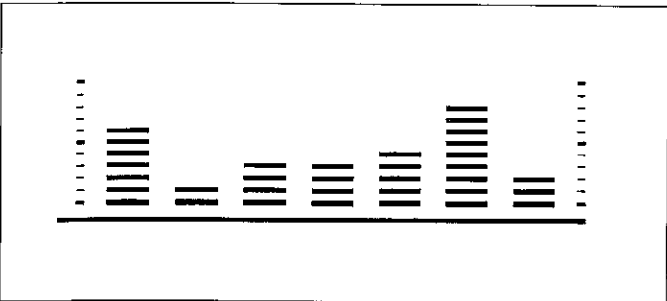
Press the BALANCE LEFT button to decrease the level of the right speaker, and press the BALANCE RIGHT button to decrease the level of the left speaker.



■ Muting

Remote control operation

Press the MUTING button to mute the sound immediately. The VOLUME indicator will flash. Press the MUTING button again to switch the sound back to its previous volume level. The VOLUME indicator will light up.



■ Spectrum analyzer

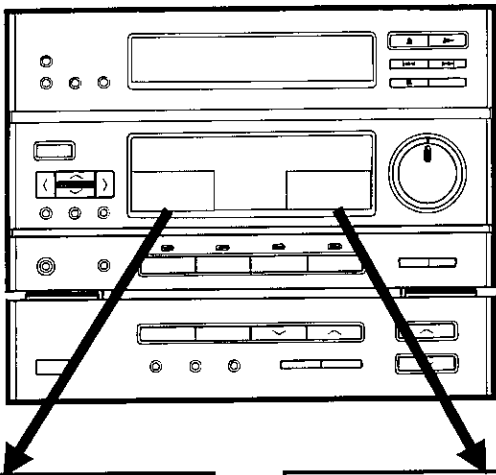
The spectrum analyzer indicates the frequency levels for each band of the playback source. Adjustments made to the preprogrammed equalizer pattern or to the sound expander pattern will be reflected in the readings of the spectrum analyzer.

SOUND FIELD CONTROL

This unit stores 6 kinds of preprogrammed equalizer modes and 4 kinds of sound expander modes in memory to enable you to enjoy various sound field effects. You can combine these modes when you recall them from memory and enjoy various sound field effects.

Active servo technology system

The Active Servo Technology System incorporates an active servo processing amplifier, which operates directly the speakers. This greatly improves the driving and controlling forces on the speakers. These exclusive active servo processing speakers make possible comfortable, powerful extra bass playback with limited distortion, and clear sound quality, even though they are compact in size.

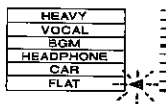
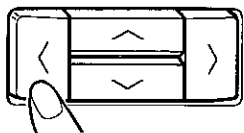


Preprogrammed equalizer mode	
HEAVY	Used for dynamic complex sounds and rock music.
VOCAL	Used for swing or pop music which emphasises vocals.
BGM	Used to listen to instrumentals and background music.
HEADPHONE	Used to make stereo tapes balanced for playback through stereo cassette players.
CAR	Used to make stereo tapes balanced for playback through stereo car cassette players.
FLAT	All the equalizer setting are centre positions.

Sound expander mode	
SPACIOUS	Sound is widened out considerably.
WIDE	Sound is widened out some.
NARROW	Sound is focused in the middle.
PASS	Normal stereo sound.

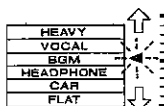
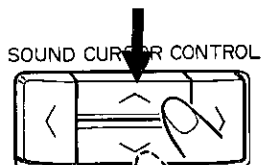
1

SOUND CURSOR CONTROL



2

To raise the cursor point



To lower the cursor point

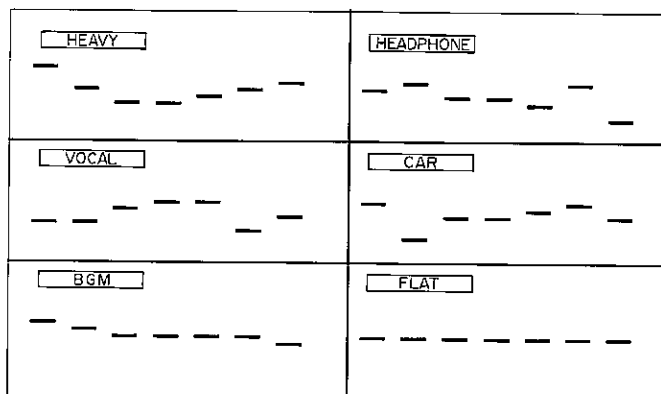
■ Recalling a preprogrammed equalizer mode

Example:

When switching from FLAT to BGM

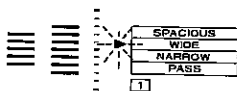
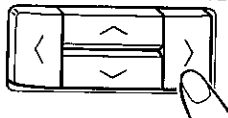
- 1 Press the SOUND CURSOR CONTROL "<" button.
 - 2 Press the "^" button within 5 seconds to select the BGM mode.
- After the preprogrammed equalizer pattern of the BGM is displayed for 5 seconds, the display will switch back to the spectrum analyzer pattern.

Select the desired pattern from the 6 preprogrammed equalizer patterns.



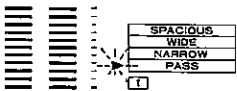
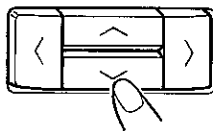
1

SOUND CURSOR CONTROL



2

SOUND CURSOR CONTROL



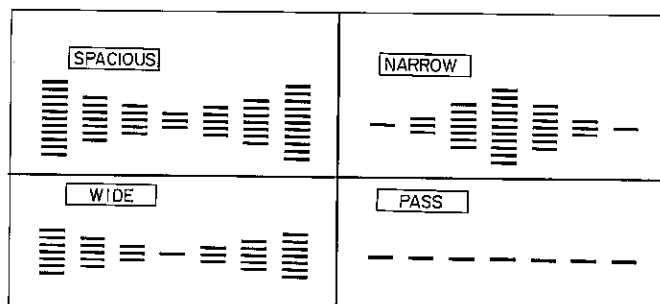
■ Recalling the sound expander mode

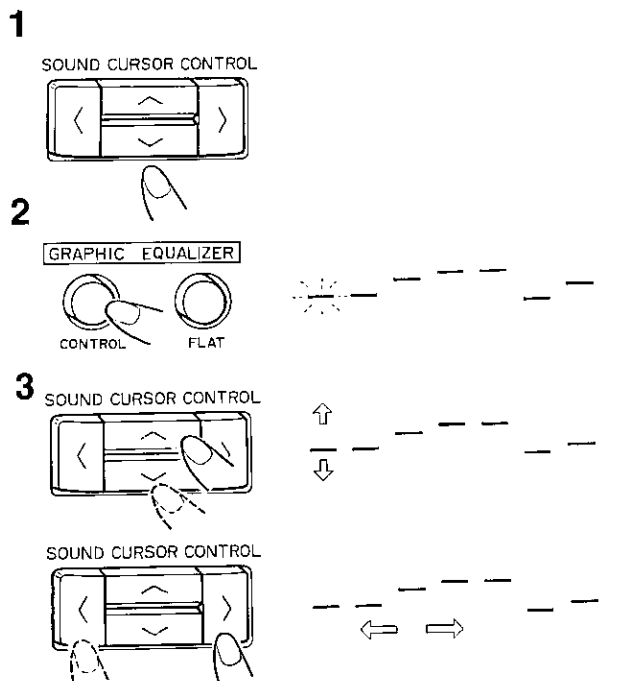
Example:

When switching from WIDE to PASS

- 1 Press the SOUND CURSOR CONTROL ">" button.
 - 2 Press the "v" button within 5 seconds to select the PASS mode.
- After the sound expander pattern of the PASS is displayed for 5 seconds, the display will switch back to the spectrum analyzer pattern.

Select the desired pattern from the 4 sound expander patterns.





■ Adjusting the graphic equalizer pattern

- The equalizer level of each frequency can be adjusted.
 - The sound expander levels cannot be adjusted.
- 1** Select a preprogrammed equalizer mode. (See page 23.)
 - 2** Press the GRAPHIC EQUALIZER "CONTROL" button.
 - The frequency display will flash.
 - 3** Adjust the equalizer levels as desired within 5 seconds by using the SOUND CURSOR CONTROL button.
 - "▲" or "▼" button; Used to raise or lower the sound level of the frequency which is flashing.
 - "<" or ">" button; Used to adjust the sound balance more to the left or to the right.

Making new patterns:

- 1** Press the GRAPHIC EQUALIZER "CONTROL" button, then the FLAT button.
- 2** Perform step 3 mentioned above.

Notes:

- After adjustment, the cursor point in the selected equalizer mode will slowly flash.
- When the SOUND CURSOR CONTROL button is pressed again to select another equalizer mode, the adjusted pattern will disappear and the pattern will be returned to the preset pattern.
- The changes in the sound, that are due to adjustments of the graphic equalizer, will be recorded just as you hear them. The sound expander mode selection has no effect on the sounds that are recorded.

■ Storing your own modes

- 5 different equalizer modes and sound expander modes can be stored.

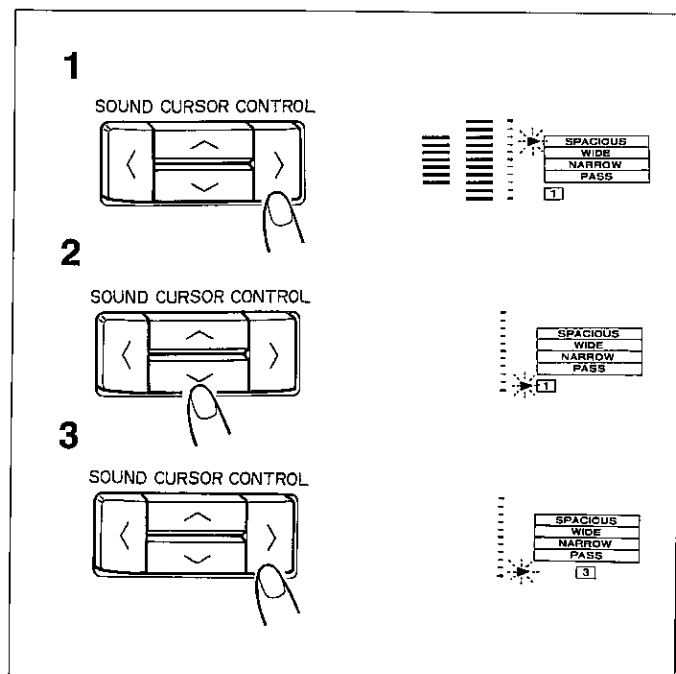
Example:

To store your modes in user memory [4]

- 1** Recall the desired preprogrammed equalizer mode and sound expander mode. (See page 23.)
- 2** Press the MEMORY button.
- 3** When the "▶" indicator flashes, press the SOUND CURSOR CONTROL ("<" or ">") button to select the pattern number to be stored.
- 4** When the "▶" indicator flashes, press the MEMORY button again.
 - After the preprogrammed equalizer pattern and sound expander pattern (which have been stored in user memory [4]) are displayed for 3 seconds each, the display will switch back to the spectrum analyzer.

Note:

- If the AC supply lead is disconnected or a power failure occurs, the patterns which are stored in the user memories ([1] - [5]) will disappear.

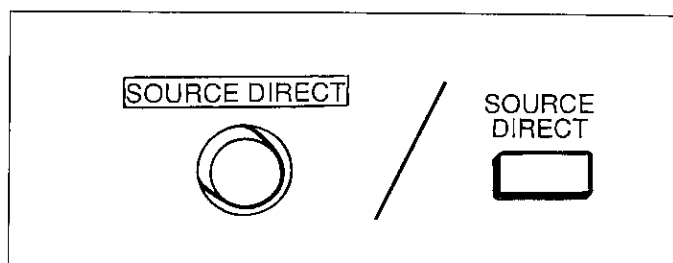


■ Recalling a user memory mode

Example:

To recall user memory [3] from the SPACIOUS pattern

- 1** Press the SOUND CURSOR CONTROL ">" button.
 - 2** Press the "v" button within 5 seconds to select [1].
 - 3** Press the ">" button within 5 seconds to select [3].
- After the preprogrammed equalizer pattern and sound expander pattern (which have been stored in user memory [3]) are displayed for 3 seconds each, the display will switch back to the spectrum analyzer.



■ Making the sound levels flat

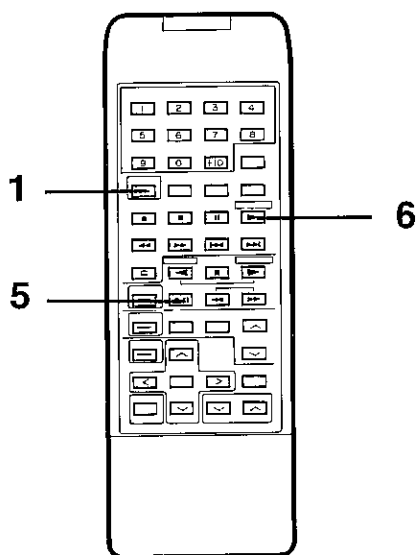
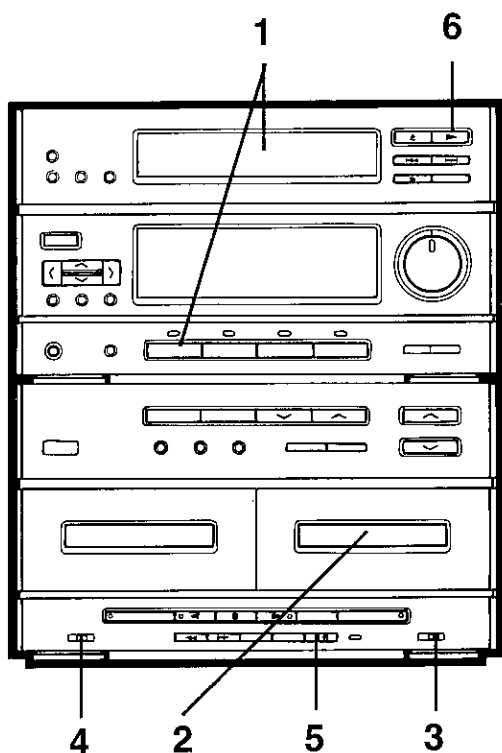
Main unit/remote control

Press the SOURCE DIRECT button. Your settings for the preprogrammed equalizer pattern and sound expander pattern will be flat. Press the SOURCE DIRECT button again to restore them to their previous states.

RECORDING

- When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.
- The ALC (Automatic Record Level Control) circuit automatically controls the level of the input signal used for recording.

- The VOLUME and BALANCE controls may be adjusted with no effect on the recorded signal. (Variable Sound Monitor)



■ Recording from the built-in CD player (CD Synchronised Recording System)

The changes in the sound, that are due to adjustments of the graphic equalizer, will be recorded just as you hear them. If you do not want the graphic equalizer adjustments to effect the sound that is recorded, press the SOURCE DIRECT button to make the sound levels flat.

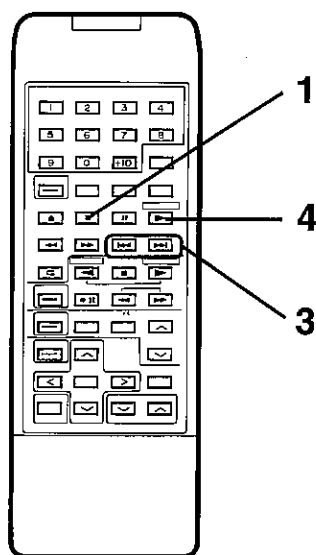
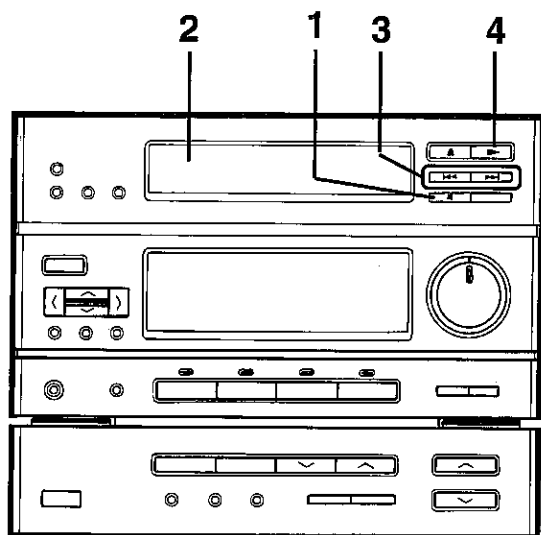
- 1 Press the CD button and load the CD to be recorded.
- 2 Load a cassette into the TAPE 2 cassette compartment.
 - Wind past the beginning part of the tape on which recording can not be performed.
- 3 When recording with the Dolby NR system, set the DOLBY NR switch to ON; if not, set it to OFF.
- 4 Set the REVERSE MODE switch to $\rightleftarrows$ to record on only one side, or to $\leftrightarrow$ for continuous recording on both sides.
- 5 Press the REC PAUSE (●||) button.
 - The RECORD indicator lights up and the DIRECT PLAY indicators flash.
- 6 Press the DIRECT PLAY button on the CD.
 - Before CD playback begins, recording automatically begins from side A of the tape.

To interrupt recording:

- 1 Press the PAUSE button on the CD.
- 2 Press the DIRECT PLAY button on the CD to resume recording.

To stop recording:

Press the ■ button on the tape.
(At this time, CD playback does not stop.)



● To exchange a CD for another CD whilst recording

- 1 Press the STOP button on the CD during recording.
- The tape stops after about 2 seconds and enters recording standby mode.
- 2 Replace the CD.
- 3 Choose the music to record next by using the APSS ►► or APSS ◀◀ button.
- 4 Press the DIRECT PLAY button on the CD.
- Recording begins after about 2 seconds.

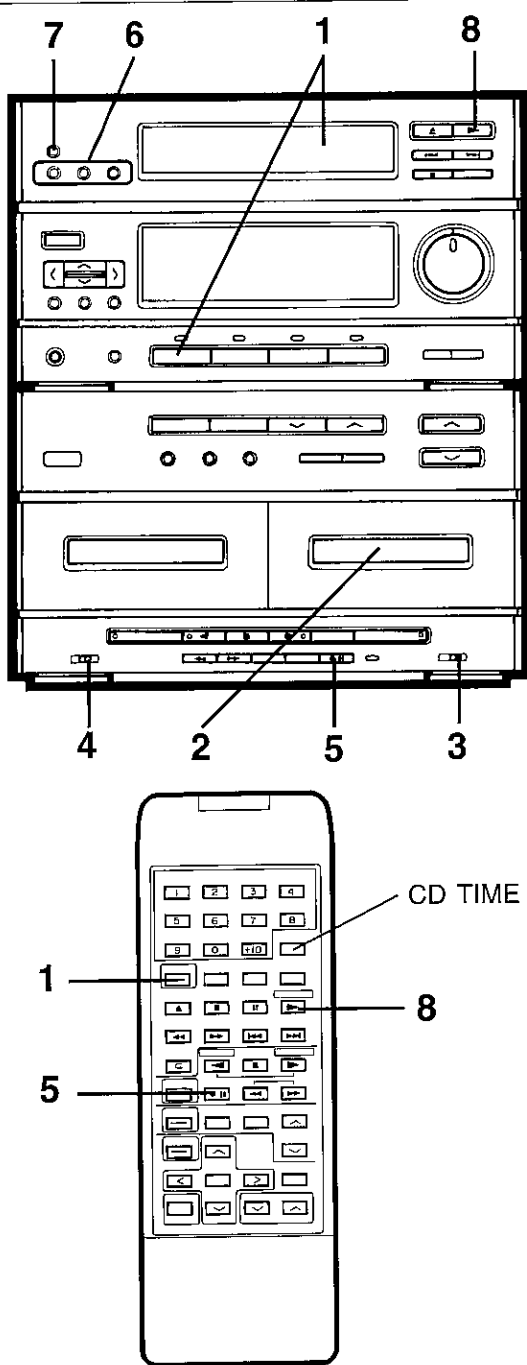
Note:

- The CD Synchronised Recording System will function even when the CD player is set to the APMS play or random play mode. When more than 2 seconds elapse between tracks, the tape will stop automatically and resume recording when the beginning of the next track is found.

When recording is continuously made on both sides of the tape:

Even if the last track of side A is not finished recording, side B will automatically start recording from the beginning of that track. (Auto restart function)

Also, recording will be made without cutting the beginning of the track on side B.



■ To edit tracks dividing them to side A and side B automatically (Auto editing function)

To use tapes effectively, tracks on a CD are automatically rearranged between side A and side B to best utilize the length of the tape. When the desired tracks are selected in programme selection, the tracks stored in memory are automatically divided between side A and side B.

- 1 Press the CD button and load the CD to be recorded.
 - 2 Load a cassette into the TAPE 2 cassette compartment.
 - Rewind the tape onto the left-side reel.
 - 3 When recording with the Dolby NR system, set the DOLBY NR switch to ON; if not, set it to OFF.
 - 4 Set the REVERSE MODE switch to $\Rightarrow$.
 - 5 Press the REC PAUSE (●||) button.
 - The RECORD indicator lights up and the DIRECT PLAY indicators flash.
 - 6 Press the TAPE LENGTH button to select the tape length.
- When using tapes other than C-46, C-60 or C-90**

Press the APSS $\gg$ or APSS $\ll$ button to adjust the time (minute by minute).

- "C10" to "C99" can be set.
- It is also possible to use the track number input buttons on the remote control to set the tape length.

- For a tape length of C-30, press the "+10", "+10", "+10" and "0". (Press each button within 3 seconds after the previous one has been pressed.)

- 7 Press the AUTO EDIT button.
 - Tracks on the CD are automatically divided between side A and side B.
 - The number of tracks, total time and track numbers to be recorded on side A and side B are displayed for approximately 4 seconds. (When there are tracks which can not be recorded, the "TIME OVER" indicator will lights up.)
- 8 Press the DIRECT PLAY button on the CD.
 - CD playback and recording start approximately 9 seconds after the tape starts (after the part of the tape on which recording can not be performed is wound).

To cancel auto editing function:

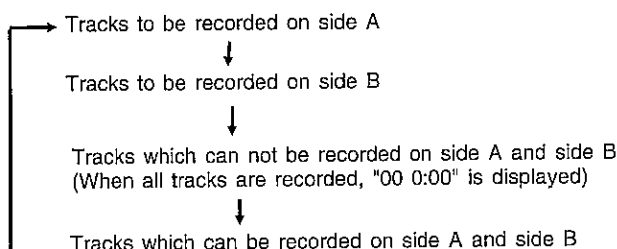
Before recording, press the STOP (■) button on the CD.

To stop recording:

Press the ■ button on the tape.
(At this time, CD playback automatically stops.)

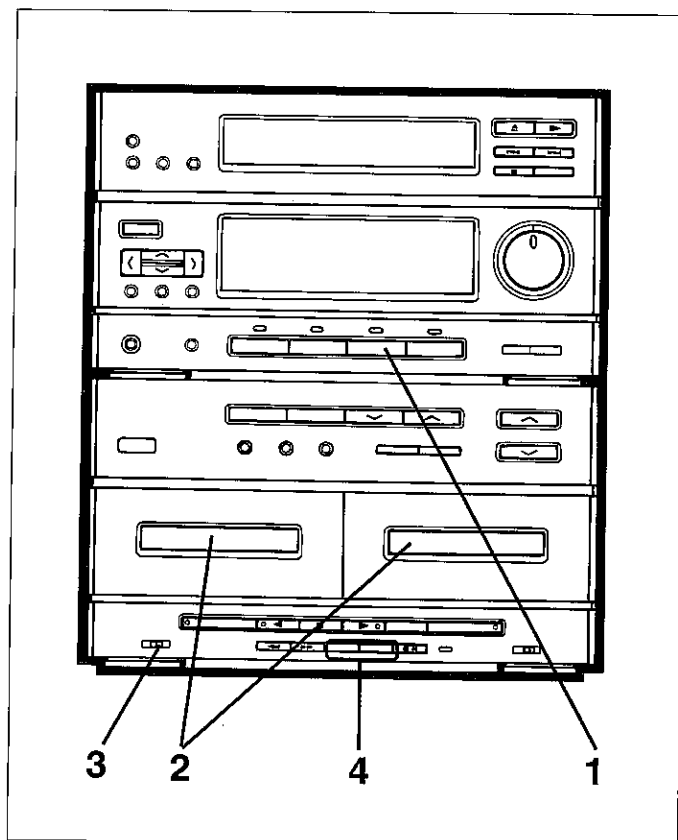
To confirm tracks to be recorded and tracks which can not be recorded:

Before recording, press the CD TIME button.



Note:

- Once CD playback starts, the display does not change.



■ Dubbing

- During dubbing, adjusting the volume or the graphic equalizer will have no effect on the recorded sound.
- Try to use the same tape formula and length for the recording tape as for the master tape.

- 1 Press the **TAPE** button.
 - 2 Load a prerecorded cassette into the **TAPE 1** cassette compartment. Insert a blank tape into the **TAPE 2** cassette compartment.
 - 3 Set the **REVERSE MODE** switch to $\rightleftharpoons$ to record on only one side, or to $\rightarrow$ for continuous recording on both sides.
 - 4 Press the **ONE TOUCH EDIT** button.
- Press "NORMAL" to edit at normal speed, and "HIGH" to edit at about twice the normal speed.
 - Editing will begin with side A.

To stop dubbing:

Press the **■** button.

- **TAPE 1** and **TAPE 2** simultaneously stop.

After dubbing

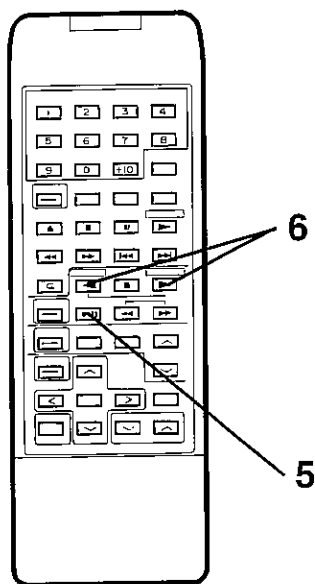
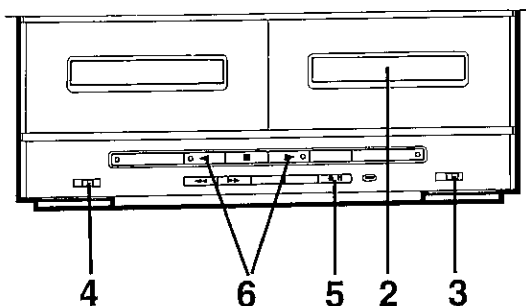
The indicator of the **TAPE 1—2** button is automatically switched to "2". Only after the tape is rewound and played back, the contents currently dubbed can be confirmed.

Note:

- Only tapes originally encoded with Dolby NR will be dubbed into tapes with Dolby NR encoding.
The **DOLBY NR** switch will have no effect on the recording of **TAPE 2** during dubbing.
However, the playback tonal quality of **TAPE 1** will change according to the **DOLBY NR** switch position.

Synchro-reverse editing function

When tapes which are different in length are used for recording and editing continuously on both sides, as soon as one tape finishes, the other is automatically fast forwarded. Editing starts from the beginning of the other side.



■ Recording from the built-in radio

- 1 Tune to the desired station. (See pages 16 - 17.)
- 2 Load a cassette into the TAPE 2 cassette compartment.
- 3 When recording with the Dolby NR system, set the DOLBY NR switch to ON; if not, set it to OFF.
- 4 Set the REVERSE MODE switch to $\rightleftarrows$ to record on only one side, or to $\rightarrow$ for continuous recording on both sides.
- 5 Press the REC PAUSE (●||) button.
 - The RECORD indicator lights up and the DIRECT PLAY indicators flash.
- 6 Press the DIRECT PLAY ► button to record side A, or the DIRECT PLAY ◄ button to record side B.
 - For continuous recording of both sides, begin on side A. Recording stops automatically at the end of side B.

■ APSS spacing

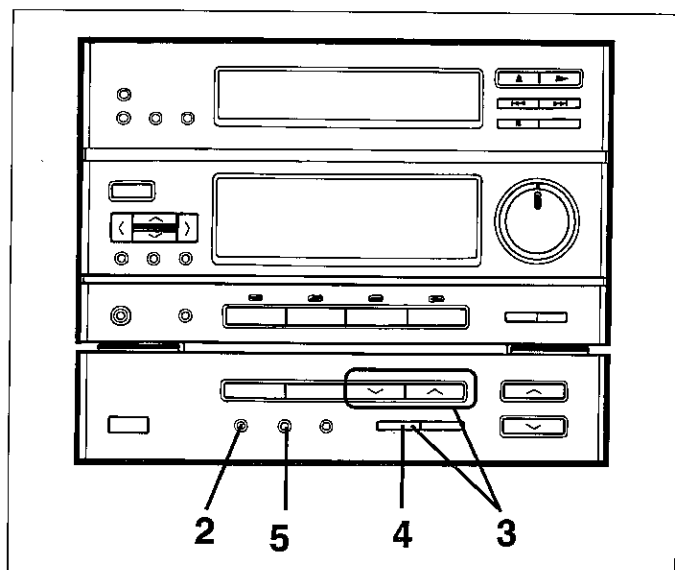
APSS requires blanks of 4-5 seconds between selections to function properly. Make the blanks as follows:

- 1 Press the REC PAUSE (●||) button when the selection being recorded ends.
- 2 Press the TAPE button.
- 3 Press the DIRECT PLAY ► or DIRECT PLAY ◄ button for which indicator is lit, let the tape run for 4 - 5 seconds, then press the REC PAUSE (●||) button again.
- 4 Press the TUNER button.
- 5 Start the next recording.

■ Erasing recorded tapes

- 1 Load the tape to be erased into the TAPE 2 cassette compartment.
- 2 Press the TAPE button.
- 3 Set the REVERSE MODE switch to $\rightleftarrows$ to erase only one side and to $\rightarrow$ to erase both sides.
- 4 Press the REC PAUSE (●||) button, then press the DIRECT PLAY ► button to erase side A of tape, or the DIRECT PLAY ◄ button to erase side B.

HOW TO USE THE BUILT-IN TIMER

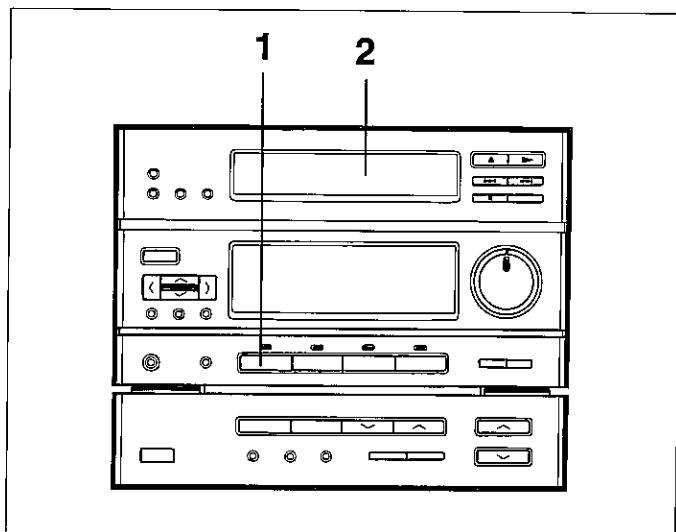


- Before setting the timer clock, make sure that the current time is correct.

■ Timer operation

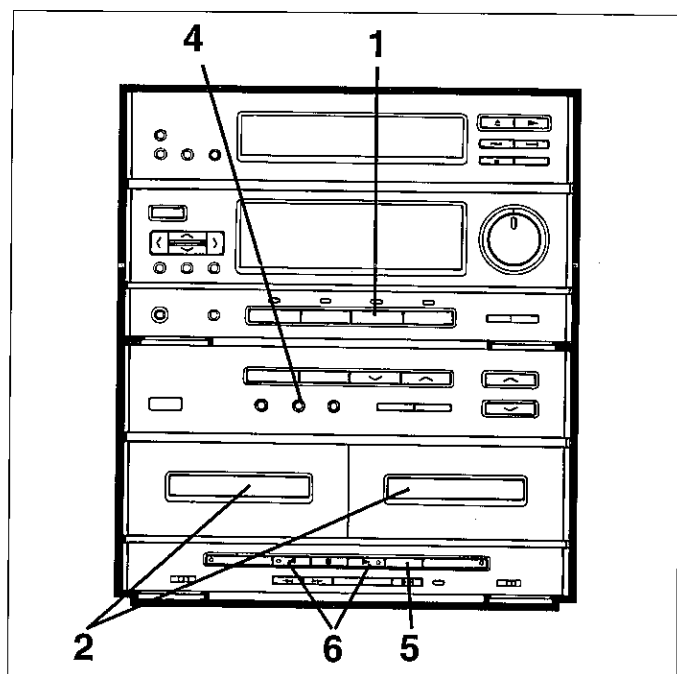
To listen to the radio:

- 1 Tune to the desired station. (See pages 16 - 17.)
 - 2 Press the DISPLAY button.
 - 3 Whilst the "TIMER" indicator is flashed, and whilst pressing the TIME ADJUST button, press the HOUR and MINUTE buttons to set the desired time.
 - 4 Release the TIME ADJUST button.
- When the start time of the timer is set by mistake, press the CLEAR button and repeat step 3.
- 5 Press the TIMER button.
- "TIMER" appears on the display. This sets the timer to the stand-by condition.
 - The radio turns on automatically at the desired time.
 - When the timer turns on the power, the sound volume will gradually increase to level you set when programming the timer.



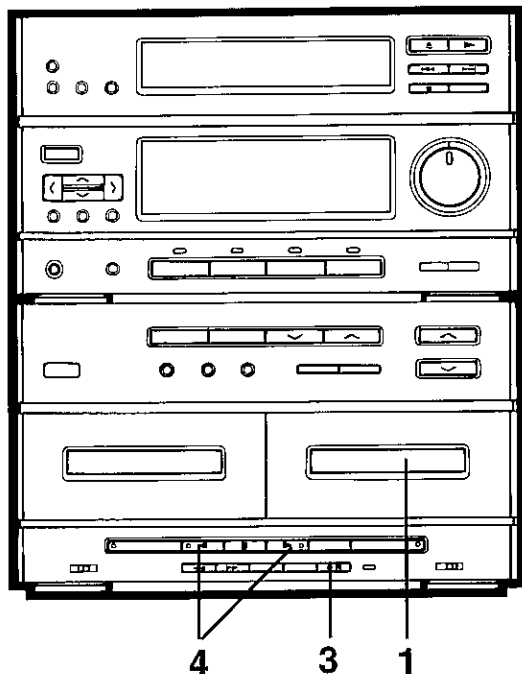
To listen to a compact disc:

- 1 Press the CD button.
 - 2 Load the disc.
 - 3 Perform steps 2 - 5 of the "To listen to the radio" section.
- CD playback starts automatically at the desired time.



To play back a cassette:

- 1 Press the TAPE button.
 - 2 Load the recorded cassette tape into the TAPE 1 or TAPE 2 cassette compartment.
 - 3 Perform steps 2 - 4 of the "To listen to the radio" section.
 - 4 Press the TIMER button.
 - 5 After 2 seconds, press the TAPE 1→2 button.
 - 6 Press the DIRECT PLAY ► button to listen to side A, or the DIRECT PLAY ◀ button for side B.
- Cassette playback starts automatically at the desired time.



To record radio programmes:

- 1 Load a blank cassette tape into the TAPE 2 cassette compartment.
- 2 Perform steps 1 - 5 of the "To listen to the radio" section.
- 3 Press the REC PAUSE (●II) button.
- 4 Press the DIRECT PLAY button corresponding to the tape which you want to record.
 - Recording starts automatically at the desired time.

Notes:

- The power will be automatically turned off 2 hours after the timer starts.
- To set the desired volume level, use the VOLUME control before setting the timer.

To confirm the timer time setting:

Press the DISPLAY button.

To cancel timer operation:

Press the POWER button.

- The "TIMER" indicator will go out.
- Unless the AC supply lead is unplugged or there is a power failure, the time set on the timer will be retained until it is reset.

■ Simultaneously sleep and timer operation

- 1 Prepare timer playback. (See page 31.)
- 2 Press the SLEEP button and set the sleep time.
 - When the sleep operation finishes, the timer function will take over for start-up the following day.

Notes:

- The source set in the sleep mode must be the same as that of the timer mode.
- Do not set the timer time so that the timer will start during sleep operation. (Since sleep operation has priority, the timer will not operate.)

■ Sleep operation

The radio, compact disc and cassette deck can all be turned off automatically.

- 1 Play back the desired sound source.
- 2 Press the SLEEP button.
 - The sleep time is automatically set to 60 minutes. (After approximately 5 seconds, the display will return to the original state.)

To change the sleep timer:

Whilst the "SLEEP" indicator is on, press the SLEEP button. The display will change from 60 down to 15 minutes and then switch to "power off" each time the SLEEP button is pressed.

- 3 The unit turns off automatically after the preset sleep time.
 - As sleep operation progresses, the sound volume will gradually decrease.

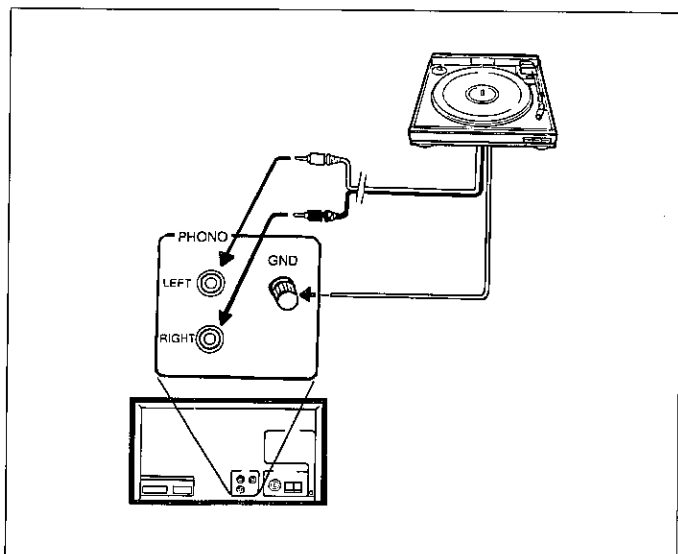
To confirm the sleep time setting:

Press the SLEEP button.

To stop the sleep operation:

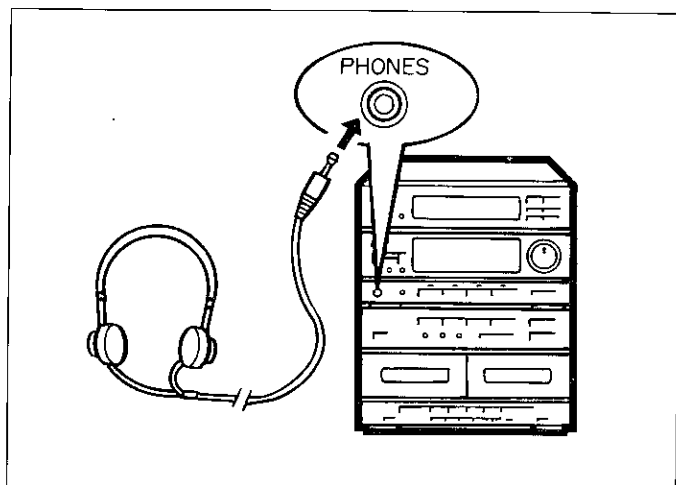
Press the POWER button.
(The "SLEEP" indicator will go out.)

USING EXTERNAL UNITS



■ Phono input

- 1** Connect the output lead of the stereo turntable to the PHONO sockets of this unit.
(red → right channel, white → left channel)
If the stereo turntable has an earth wire, connect it to the GND terminal.
- Only a stereo turntable with a magnetic type cartridge can be connected to the PHONO sockets. Do not connect a stereo turntable equipped with ceramic type or a moving coil (MC) type cartridge.
- 2** Press the PHONO button.
- 3** Operate the stereo turntable.
- 4** Start recording with this unit, if so desired. (See page 30.)

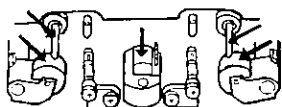


■ Headphones

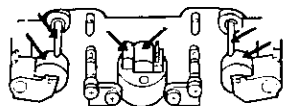
- Be sure that your headphones have a 3.5 mm (1/8") diameter plug and are between 16 ohms and 50 ohms impedance. Recommended impedance is 32 ohms.
- When headphones are connected, the speakers are defeated automatically. Adjust the VOLUME control for desired volume.

MAINTENANCE

TAPE 1



TAPE 2



Internal care

- Dirty heads, capstans and pinch rollers can cause poor sound and tape jams. Clean these parts with a cotton swab moistened with commercial head/pinch roller cleaner or isopropyl alcohol.
- After long use, the deck's heads and capstans may become magnetised, causing poor sound. Demagnetise these parts once every 30 hours of playing/recording time by using a commercial tape head demagnetiser. Read the demagnetiser's instructions carefully before use.

External care

- Periodically wipe the cabinet with a soft cloth and dilute soap solution, then wipe with a dry cloth.
- Do not use chemically treated cleaning cloths or other chemicals. (See "Precautions".)

SPECIFICATIONS

As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

CD player/pre-amplifier section

Power source:	DC supplied from deck/power amplifier unit
Input sensitivity and input impedance:	PHONO; 3.5 mV/47 kohms
Load impedance:	Headphones; 16 - 50 ohms (recommended; 32 ohms)
Dimensions:	Width; 270 mm (10-11/16") Height; 158 mm (6-1/4") Depth; 255 mm (10-11/16")
Weight:	2.5 kg (5.5 lbs.)
(Tuner)	
Frequency range:	FM; 87.5 - 108 MHz MW; 522 - 1,620 kHz LW; 153 - 281 kHz
Sensitivity:	FM; 2.5 μ V MW; 500 μ V/m LW; 560 μ V/m

(Compact disc player)

Type:	Compact disc player
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
Rotational speed:	200 - 500 rpm CLV, Approx.
Error correction:	CIRC (Cross Interleave Reed-Solomon Code)
D/A converter:	16-bit
Filter:	4-time oversampling digital filter and active filter
Frequency response:	20 - 20,000 Hz
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

Deck/power amplifier section

Power source:	• For European customers AC 230 V, 50/60 Hz • For UK customers AC 240 V, 50 Hz
Power consumption:	180 W
• For European customers	
Peak music power output:	180 W (Total)
Music power output:	2 x 45 W (DIN 45 324)
Continuous power output:	2 x 30 W (DIN 45 324) 2 x 22 W (DIN 45 500)
• For UK customers	
Music power output:	2 x 45 W, 1 kHz, 6 ohms, 10 % T.H.D.
Continuous power output:	2 x 30 W, 1 kHz, 6 ohms, 10 % T.H.D. 2 x 22 W, 1 kHz, 6 ohms, 0.9 % T.H.D.
Load impedance:	Speakers; 6 ohms
Dimensions:	Width; 270 mm (10-11/16") Height; 158 mm (6-1/4") Depth; 276 mm (10-7/8")
Weight:	5.6 kg (12.3 lbs.)

(Tape deck)

Tape:	Compact cassette tape
Frequency response:	30 - 13,000 Hz (Normal tape) 30 - 14,000 Hz (CrO ₂ tape) 30 - 16,000 Hz (Metal tape)
Signal/noise ratio:	54 dB (Dolby NR off) Dolby NR effect; 10 dB (at over 5 kHz)
Wow and flutter:	• For European customers 0.25 % (DIN 45 511) • For UK customers 0.15 % (WRMS)

Speaker section

Type:	2-way bass-reflex type
Speakers:	12 cm (4-3/4") woofer 5 cm (2") tweeter
Frequency range:	40 - 20,000 Hz
Rated power:	30 W
Maximum power handling capacity:	50 W
Impedance:	6 ohms
Dimensions:	Width; 158 mm (6-1/4") Height; 316 mm (12-1/2") Depth; 214 mm (8-7/16")
Weight:	2.7 kg (6.0 lbs.)/each

MEMO/MEMORANDUM/MÉMORANDUM/MEMORANDUM/ANTECKNINGAR/ANNOTAZIONI

SHARP
SHARP CORPORATION

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